



# System Dynamics NEWSLETTER

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## FROM THE PRESIDENT *Erling Moxnes*



Dear Colleagues,  
Groucho Marx said  
“I refuse to be a  
member of any  
club that would  
have me as a  
member.” In

contrast, I am both lucky and honored to be elected President of a society of my first choice. This Society possesses vital stocks of resources that have been built over many years. In this newsletter I would like to inform you about ongoing and new initiatives to add to our existing resources.

First, words of thanks to outgoing President James Lyneis; already we benefit from many of his initiatives. On behalf of the Society, let me also thank outgoing officers and members of the Policy Council – Qifan Wang (Past President), David Packer (Secretary), Deborah Campbell (VP Member Services), and outgoing Policy Council members Gloria Pérez Salazar, Santanu Roy, Ali Kerem Saysel, and Krystyna Stave. Also thanks to Robert L. Eberlein (VP E-Presence) and Deborah Lines Andersen (VP Publications) for taking on another term.

I would also like to welcome the new members to the Council – Rogelia Oliva (President Elect), J.

Bradley Morrison (Secretary), Krystyna Stave (VP Member Services), and Policy Council members Susan Howick, Birgit Kopainsky, Agata Sawicka, and Aldo Zagonel. We look forward to their contributions.

*Conferences.* The conferences are important meeting places where we get inspiration, learn, and receive feedback. As described in the Conference Organization Guidelines, there are two governing and equally important committees: The Conference Organizing Committee and the Program Committee. The Conference Organizing Committee is approved by the Policy Council as part of the site selection process. To ensure high quality of papers and well designed programs we have a system with reviewers, thread chairs, a local program committee, and as of last year the Society Program Oversight Committee. In this system the Conference Chair and the Program Chair have very important positions. This winter’s Policy Council meeting voted to have future Program Chairs appointed directly by the Policy Council.

*Outstanding Service Award.* The Society depends on voluntary work. **President**, *continued on page 2*

## Policy Council Nominations for 2010

During the 2009 Winter Policy Council Meeting the following were nominated as officers and members of the Policy Council, to take office in 2010:

- *President Elect (2010)*  
David Lane
- *Vice President–Meetings (2010–2012)*  
Andreas Größler
- *Vice President–at–Large (2010–2012)*  
Joel Rahn
- *Policy Council Members (2010–2012)*  
Laura Black  
Ignacio Martínez-Moyano  
Martin Schaffernicht  
Kim Warren

For brief biographies of each candidate, go to “Activities/ Governance” on the drop-down menu of the Society website. The Nominating Committee submits a single nomination for each position to be filled in the pending election.

**Nominations**, *continued on page 3*

**President**, *continued from page 1*

Last summer a Community Service Award Committee was formed. The committee has prepared a statement outlining the motivation for an award and the selection criteria. The Policy Council has approved the statement and commented that only unusually outstanding services should be honored.

*Electronic services.* I encourage all of you to acquaint yourselves with the Society's web page:

[www.systemdynamics.org](http://www.systemdynamics.org). It contains valuable resources ranging from publications to practical information. More resources will be added to this "center of our electronic universe." One recent addition is the new discussion forum; Bob Eberlein has done a great job! You can find archives of messages and you can choose to receive email digests or RSS feed.

*Strategy development.* Strategies for the Society have been discussed repeatedly over the years and more or less explicit strategies have guided the build-up of Society resources. The strategy question was raised again by Jay W. Forrester at the 50-year anniversary conference. President Qifan Wang announced a new focus on strategy and President James Lyneis followed up this work last year. Strategy is also what I want to focus on this year. In the following I formulate some thoughts about strategy and the process we should follow.

System dynamics is a method that can contribute to solutions of challenging problems in an increasingly complex world. The purpose of the Society, where we work together and for each other, is to provide services that enable and encourage proper use of system dynamics. For system dynamics to reach its potential, the diffusion literature points to important stepping stones and stumbling blocks. The key stepping stone is

the relative advantage of system dynamics. While perceived usefulness can be influenced by fads and rumors, the best indicator for the long term is quality. Quality not only reflects accuracy of analysis but also its relevance for important problems. Promoting high quality work should be the number one priority for the Society. Major stumbling blocks are represented by complexity, lack of compatibility, missing observations of successful experiences, and failure to see opportunities for low cost trials. This list of major stumbling blocks immediately points to resources we need to build for each other in terms of papers, guidelines, repositories of success stories, and publicity.

Diffusion issues are important everywhere. Faculty must be recruited to develop courses and programs, write papers, recruit students, and raise research funds; consultants should be inspired to take an interest in and practice system dynamics; managers, public administrators, and politicians should demand system dynamics analysis and hire people with system dynamics backgrounds; and schools should take advantage of system dynamics in their teaching.

Kim Warren has made a great effort since the last conference to map the key resources of importance to healthy growth of system dynamics. He has indicated how each resource influences and may be vital to the growth of other resources. As one could expect, the system is complex with many stocks and feedback loops. Ideally, we should parameterize and simulate the model, to study how various policies lead to growth or stagnation, similar to Forrester's market growth model. However, since strategy in this case involves numerous policies to affect many resources, a less ambitious effort is likely to produce more useful results now, while preparing the

ground for simulations at a later stage.

Building on Kim's work, a natural next step is to create a list of policy options. Options will come from many sources; Kim has already suggested numerous initiatives and last spring's strategy discussion on the System Dynamics Mailing List contains many suggestions. Next we should discuss and rank policy options according to expected benefits and costs. We may also identify individuals who benefit the most from the different initiatives and challenge them to do the work for their own sake as well as for the Society. The plan is to have something for a wider audience before the conference in Albuquerque, where I hope to see you.

## Notes from the Policy Council

The System Dynamics Society is governed by its Policy Council, which meets twice a year, during the conference and again in the winter. Historically, fewer people are able to attend the Winter Policy Council Meeting. As part of a continuing effort to increase participation in this meeting, this year's meeting was once more divided into three parts. The first session was electronic and occurred during the first two weeks of January. This was followed by a face-to-face meeting in Worcester,



*Winter Policy Council Meeting*

Massachusetts on January 17<sup>th</sup> to discuss administrative and open policy issues, and then develop and

propose motions. For approximately a five-week period after the face-to-face meeting there was an online discussion and voting on proposed motions.

Ongoing business and discussions at the electronic meeting include reports by officers and committees, publication reports, conference reports, and new business. Motions voted on and approved included approving the minutes from the summer meeting, a 2009 budget adjustment, the composition of Community Service Awards Committee, the slate of candidates to take office in 2010, conference program chair appointments, the adoption of new Conference Organization Guidelines, and the System Dynamics Society Outstanding Service Award. The motion to allow electronic voting for the summer meeting, similar to the winter meeting, was rejected.



*Winter Policy Council Meeting*

Minutes of this and all Policy Council Meetings can be found on the Governance page of the Society's website.

## **Dennis Meadows Wins Japan Prize**

The Japan Prize is awarded to people whose original and outstanding achievements in science and technology are recognized as having advanced the frontiers of knowledge and served the cause of peace and prosperity. Dennis Meadows is recognized for his work on "Transformation towards a sustainable society in harmony with nature." *Congratulations, Dennis!*

## **Nominations, continued from page 1**

However, members may submit other nominations for these offices and positions, provided that: (1) each such nomination is accompanied by a petition signed by twenty-five members in good standing; (2) each nominee is a member in good standing; (3) written evidence is submitted to the effect that each nominee has agreed to stand for election; and (4) such nominations reach the Secretary within five weeks after publication of nominations received from the Nominating Committee.

If no nominations are received by the Policy Council from the membership at large, the slate of candidates submitted by the Nominating Committee, and approved by the Council, will be deemed elected. For more information on Nominations and Elections, click on "Governance" in the "Activities" drop-down menu of the Society's website, then go to "Policies of the System Dynamics Society."

## **Study Abroad During Your PhD**

*by Nici Zimmermann and Switbert Miczka, University of Mannheim*

Earning a PhD is considered a challenge – not only from an "inside" perspective of the doctoral student but also according to what those having completed it tell about this period of their lives. At the first step into the world of research and academic exchange, we experience it to be more than just a "test," rather it lays an important foundation for one's personal and professional future. The exchange of ideas, perspectives, and opinions is vital for this endeavor.

The doctoral student's own academic surrounding renders tremendous support and often seriously challenges thoughts and concepts. And, we found that a visit to a different academic institution in

a different country stimulated our thinking (and writing) in unexpected ways.

From our experience, the system dynamics community offers its members a wide range of opportunities to broaden their horizons, in an academic sense, of course, but just as much regarding cultural and personal experiences.

The global reach and disciplinary mixture of the system dynamics community give students who are interested in going abroad a great chance to find experts in their research areas. At the same time, the openness and curiosity of system dynamicists makes it worthwhile to look for a university where topic strengths complement rather than match the core focus of the student's research.

This is what we have experienced when living and studying abroad. Since our doctoral studies are concerned with broad management subjects, the opportunities to discuss with, for example, policy scientists and information scientists made our stays particularly interesting and fruitful endeavors. From our multiple experiences abroad, we can only urge every serious student of system dynamics to make use of the great networking possibilities a community like ours offers.

The benefits of insightful input for student research and connecting with highly interesting people makes it really worth every effort to spend the time abroad!

*Nici studied at the University of California, Irvine, the London School of Economics and Political Science, the Stockholm School of Economics, and the University at Albany, State University of New York.*

*During his Master and PhD studies, Switbert spent time at the Copenhagen Business School, the University of Cape Town, and the University at Albany, State University of New York.*

## 2009 Conference Albuquerque, New Mexico

**July 26 – 30, 2009**

**(Bonus Day – Friday, July 31)**

The Albuquerque conference is shaping up very nicely! Participants are registering, a wide variety of papers are being submitted, and events are being finalized. The conference promises strong participation and a full program of high quality contributions.

**New this year:** Friday is designed as a **Bonus Day** – a special time for interest groups to hold substantive meetings. There will be one to two **discussant-type** parallel sessions planned per thread. **New threads** this year include: Challenges of Terrorism/Insurgencies, Gender Issues, Infrastructure Dynamics and Resiliency, and Participatory Approaches to Modeling and Simulation. The **Copenhagen Climate Exercise** will be offered and is a simulation-based role-playing climate game which gives groups an experience of reaching a global agreement to mitigate climate change. To serve the **K-12 Community** there will be many special convened sessions, workshops and events. (See page 6 for K-12 Program details.) In a first step toward making this conference **carbon neutral**, the Society has partnered with Carbonfund.org as a means of offsetting the carbon emissions associated with the conference. This will be an unforgettable meeting!

Some quick reminders:

- March 23<sup>rd</sup> – paper submission deadline. Workshops and session proposals are also due.
- May 13<sup>th</sup> – notifications of acceptance will be sent.
- May 20<sup>th</sup> – final abstracts are due.
- June 3<sup>rd</sup> – presenter registration.

- June 19<sup>th</sup> – deadline for accommodations booking *and* the early conference registration fee rate. Forms can be found on the conference website. Please register early using the versatile web-based submission system.

- The Printed Abstract Proceedings will be distributed at the conference. The full proceedings, including complete papers, will be available on the Society website after the conference; no CD will be distributed.

**Newcomer Orientation** is a special event for newcomers. Information will be provided by experienced guides to help newcomers maneuver resourcefully through the conference and get the most out of the experience. If interested, check the box on the registration form as a first-time participant. To volunteer as a guide contact James Melhuish, [jamesmelhuis@gmail.com](mailto:jamesmelhuis@gmail.com).

### Awards and Scholarships

For more detailed information on both the Society scholarships and awards, and the outside awards, including the nominating process, please visit the conference website.

### Society Awards and Scholarships

The **Jay Wright Forrester Award** is given annually to the best publication in system dynamics during the previous five years. The award is presented during the conference. Nominations for the Forrester award will be accepted until March 31<sup>st</sup>. Visit [www.systemdynamics.org/Society\\_Awards.htm](http://www.systemdynamics.org/Society_Awards.htm) for more details on the nominations process.

The **Dana Meadows Student Paper Prize** and honorable mentions are awarded to outstanding papers authored by student(s) and presented at the conference.

The **Applications Award** is awarded for the best “real world” application of system dynamics.

**Conference Scholarships** A limited number of partial conference scholarships are available this year. Scholarships cover conference registration fees and in some cases hotel expenses for the conference days. Scholarships are based on financial need and a review of all submitted papers. These scholarships are not limited to students. The application deadline is March 31<sup>st</sup>. To apply, use the “Award and Scholarship Information” button on your user menu page in the submission system.

### Outside Awards

The **Barry Richmond Scholarship Award** is presented annually to a deserving systems thinking or system dynamics practitioner whose work demonstrates a desire to expand the field or to apply it to current social issues.

The **Lupina Young Researchers Award** will be awarded to outstanding papers dealing with health-related topics, authored by students or recent (past 5 years) graduates and presented at the conference. The work considered for this award must be accepted as a paper for presentation at the current conference, with its primary thread designation being Health Policy.

To submit your paper for any awards, log into the conference submission system; on the User Menu page, click on the “Award and Scholarship Information” button and follow the instructions. Conference paper awards are self nominating and the review processes are conducted separately. Please note that you can apply for all of the above awards. You may also submit more than one paper for each award.

For updated conference details please visit: [www.systemdynamics.org](http://www.systemdynamics.org)

## New Digital Forum for Society

by *Bob Eberlein,*  
*Vice President Electronic Presence*

After more than a decade, the System Dynamics Mailing List has finally been replaced. Rather than an email list, we have moved this discussion to an interactive on-line forum with options to receive email digests of forum activity or see what is posted using Real Simple Syndication. To access the forum go to [www.systemdynamics.org/forum](http://www.systemdynamics.org/forum)

The purpose of the new forum is to make it easier to communicate, and especially to follow different discussion threads. To that end there are currently four main categories (also called “forums”) to post to: Announcements, Open Discussion, Environment/Energy and Health Policy. Anyone can read what is posted, but in order to make a posting you will need to log in. To log in, use your email address as the Login ID. The password is the same as that used by the web submission system so if you have forgotten your password, go to [www.systemdynamics.org/cgi-bin/sdsweb](http://www.systemdynamics.org/cgi-bin/sdsweb) to reset it.

Announcements can be posted to a number of topic areas including job openings, upcoming workshops, conferences, awards, and publications. If you have or come across news of interest to the broader system dynamics community, I would encourage you post it here. Announcements are moderated, so they will not show up until they have been approved by a moderator, usually within 24 hours. Categories and topics are ordered from most recent to least recent.

Open Discussion is for all topics related to system dynamics. This forum is not moderated, so anything you post will be visible immediately. Please be careful to respect copyright by making links rather than copying content. By

default the topics are ordered from most recent to least recent and the posts within a topic are ordered chronologically, although you can change the ordering.

The remaining categories are to support discussions by Society Special Interest Groups. The Health Policy SIG is one, while the Energy and Environment SIGs have combined discussions in a second category. Any SIG or Chapter that wishes to set up a place to hold discussions is welcome. Bringing as much discussion together as possible will make it easier for others to find out about what is being done in system dynamics.

In addition to the active forums described above, Tony Kennedy and I are working on getting the archives of the System Dynamics Mailing List from the last 10 years set up in the same place. This will be read-only content, but should facilitate searches to see what has previously been said on a topic.

The exact structure of the forum is fluid and will be adjusted based on feedback from people in the community. There is no requirement of Society membership to participate in the forum, although I certainly encourage you to renew your membership if you have not already.

## System Dynamics Wiki

by *Bob Eberlein,*  
*Vice President Electronic Presence*

The System Dynamics Wiki – or WikiSD – is up and is starting to take form at [www.systemdynamics.org/wiki](http://www.systemdynamics.org/wiki). This is something that becomes more useful as more content is added so visit it and feel free to add the content you feel is needed. Gene Bellinger ([gene@thefirstdiscipline.org](mailto:gene@thefirstdiscipline.org)) has put up much of the structure and content and, if you are thinking about contributing, he would be happy to coach or just encourage

you. There is a Step-by-Step Guide on the WikiSD showing you how to get started.

Some time ago, Fabian Szulanski challenged people to come up with the 30-second “elevator” speech explaining system dynamics. Some of the speeches are up on WikiSD. For fun take a look, or even add your own.

## News and Notes

### New PhDs

**Michael Deegan**, “Exploring U.S. Flood Mitigation Policies: A Feedback View of System Behavior,” University at Albany, May 2007.

**Özge Pala**, “Selective Exposure to Information in the Context of Escalation of Commitment,” Radboud University, Nijmegen, October 2008.

### 17<sup>th</sup> MIT—UAlbany—WPI System Dynamics PhD Colloquium

Students (and faculty) from the University at Albany (UAlbany), Massachusetts Institute of Technology (MIT) and Worcester Polytechnic Institute (WPI) gathered on the steps of Page Hall in Albany on October 3, 2008, after a day-long PhD Colloquium. This event, held twice a year, started in the fall of 2000.



### PhD Colloquium Participants

You can find more information about this event (and events like it) including a summary, abstracts, and presentations, at the bottom of the Society’s Activities web page.

## Publications Update

### 1983-2008 Conference Proceedings

The Society has digitized all past conference proceedings and added them to the open source materials on our website. Abstracts and titles are fully searchable; papers are scanned as non-searchable .pdf files.

## Announcements

### MIT Sloan School of Management Offers Executive Programs in System Dynamics

The System Dynamics Group at the MIT Sloan School of Management continues to offer several executive programs in system dynamics, including their flagship five-day program, led by Professors John Sterman and Nelson Repenning, with guest speakers including Jay Forrester, Peter Senge, and Mark Paich. In 2009 the program takes place June 8-12, on campus. The workshop emphasizes hands-on, interactive learning, including use of simulation and management flight simulators. See [http://mitsloan.mit.edu/execed/course\\_details.php?id=583](http://mitsloan.mit.edu/execed/course_details.php?id=583). There are also available 2-day versions of the course at various times throughout the year; see [http://mitsloan.mit.edu/execed/course\\_details.php?id=490](http://mitsloan.mit.edu/execed/course_details.php?id=490). The Sloan Executive Education calendar is available at: <http://mitsloan.mit.edu/execed/calendar.php>

### ICSDS 2009 to Include a K-12 Program

by *Lees Stuntz and Tracy Benson*

The International Conference of the System Dynamics Society will feature a coordinated thread of activities designed to highlight the use of system dynamics and systems thinking in K-12 education. These activities will encompass:

### Parallel session(s) based upon full papers – Wednesday (July 29)

These will be papers addressing the use of system dynamics in education submitted through the normal process of paper reviews.

### Special poster session for K-12 teachers and students to display their work – Wednesday (July 29)

This may include poster presentations by K-12 teachers describing what is going on in their classrooms, samples of education materials used for K-12 teachers and students, examples of student work, and posters by high school students describing their system dynamics projects.

### Workshops tailored to the K-12 community – Thursday (July 30)

These six workshops will be short, one hour lessons taught by experienced teachers highlighting how teachers, from primary school through graduate school, make system dynamics accessible to their students. Three of the workshops will be a primary, a middle school and a high school lesson taught by experienced teachers from the Creative Learning Exchange and Waters Foundation Networks. The other three workshops will be given by experienced system dynamics teachers from higher education, including George Richardson. The sessions should be exciting and

interesting to everyone who is interested in education at all levels.

### Round-table discussion to advance collaborations between the system dynamics and K-12 communities – Friday (July 31)

This morning session will focus on the coordination between system dynamics practitioners and K-12 schools. There will be an opportunity for practitioners to brainstorm with teachers and K-12 education professionals to devise plans to increase the availability of system dynamics expertise for our K-12 schools. The outcome of the session will be a plan to go forward with specific tasks for the coming year to increase the contact between K-12 and system dynamics professionals.

We encourage K-12 educators and system dynamicists to join us at this exciting meeting and help to contribute positively to the use of system dynamics, a necessary critical thinking and problem solving skill for all students in K-12 education. If you are interested in contributing to this program, please contact Aldo Zagonel at [aazonel@sandia.gov](mailto:aazonel@sandia.gov), particularly if you would like to join the round-table discussion on Friday, July 31.

*If you have an announcement or would like to contribute an article of interest please contact the Society office.*

## How to Contact Us

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