

Annual SIG reports February 2014

- Biomedical
- Business
- Conflict, Defense, and Security
- Education
- Energy
- Environmental
- Health Policy
- Information Science and Information Systems
- Model Analysis
- Psychology

Biomedical – missing

Business

Annual Special Interest Group (SIG) Report

<i>SIG:</i>	Business
<i>Year:</i>	2013
<i>Officers</i>	
President:	Frederick Kautz, Raafat Zaini
SIG-society liaison:	Bob Eberlein, Kim Warren
Webmaster:	Bob Eberlein
<i>Website:</i>	http://sigs.systemdynamics.org/business/
<i>Last update:</i>	01/03/2014

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The past year

SIG development

Activities by SIG Members

Activity	Date	# Attendees
Kim Warren, <i>Strategy Dynamics Workshop</i> , held in conjunction with the 31 st International Conference of the System Dynamics Society, Cambridge, MA	July 19, 2013	25
Frederick Kautz, <i>Business SIG Annual Meeting</i> (inaugural), held in conjunction with the 31 st International Conference of the System Dynamics Society, Cambridge, MA	July 24, 2013	40 (est)
Christina Spencer, Kim Warren and Christopher Spencer, <i>Getting Started with Sysdea Online Modeling Software</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA	July 25, 2013	10
Kim Warren and Christopher Spencer, <i>Rapid Modeling and Teaching with Sysdea Online System Dynamics Software</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA	July 25, 2013	25
Kim Warren, <i>Strategy Dynamics Summer School</i> , blended learning course with online materials and webinars. http://www.strategydynamics.com/sdcourse	August 19-23, 2013	10
Edward Anderson, <i>Practitioners' Roundtable</i> , 31 st International Conference of the System Dynamics Society, Cambridge, MA	July 24, 2013	45 (est)
John Morecroft and Martin Kunc, <i>World Dynamics Revisited</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA	July 25, 2013	40
Leonard Malczynski, <i>Powersim Studio User Group and Advanced Techniques with Powersim Studio</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA.	July 25, 2013	10 (est)
Leonard Malczynski, <i>Getting Started with Powersim Studio</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA.	July 25, 2013	10 (est)
Joanne Egner, Karim Chichakly and William Schoenberg, <i>Getting Started with STELLA and iThink</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA.	July 25, 2013	20 (est)
Joanne Egner, William Schoenberg and Karim Chichakly, <i>Creating Simulations for the Web with STELLA and iThink</i> , Workshop held at 31 st International Conference of the System Dynamics Society, Cambridge, MA.	July 25, 2013	20 (est)

Publications by SIG Members

Relevant (SD-related) publications include books, chapters, articles, conference proceedings.

“Type” is coded as follows: A=article; B=book; C=chapter; P=proceeding; S=software.

<i>Publication</i>	<i>Type</i>
Yingliang Xie, <i>The Application of System Dynamics in Business Simulation</i> , Beijing: Metallurgy Industry Press, 2013.	B
Natalia Lychkina, <i>Simulation Modeling of Economic Processes</i> , INFRA-M, Moscow, 2013.	B
A. M. Bassi, Prakash Deenapanray, and Pal Davidsen, <i>Energy policy planning for climate-resilient low-carbon development</i> , in <i>Energy Policy Modeling in the 21st Century</i> , Hassan Quadrat-Ullah (Ed.), Springer-US, May/June 2013.	C
Robert L. Eberlein and Karim J. Chichakly, <i>XMILE: A New Standard for System Dynamics</i> , <i>System Dynamics Review</i> , Vol. 29, No. 3 (July-September 2013), pp. 188-195.	A
Robert L. Eberlein and James P. Thompson, <i>Precise Modeling of Aging Populations</i> , <i>System Dynamics Review</i> , Vol. 29, No. 2 (April 2013), pp. 87–101.	A
Kawika Pierson and John D. Sterman, <i>Cyclical dynamics of airline industry earnings</i> , <i>System Dynamics Review</i> , Vol. 29, No. 3 (July-September 2013), pp. 129–156	A
H. A. Akkermans and C. Voss, <i>The service bullwhip effect</i> , <i>International Journal of Operations and Production Management</i> , 33(6), 765-788 (2013).	A
K. E. van Oorschot, H. A. Akkermans, K. Sengupta, and L. N. van Wassenhove, <i>Anatomy of a decision trap in complex new product development projects</i> , <i>Academy of Management Journal</i> , 56(1), 285-307 (2013).	A
Jürgen Strohhecker and Andreas Größler, <i>Intelligence, Personality, Interest and Knowledge – The effect of personal traits on inventory management performance</i> , <i>International Journal of Production Economics</i> , Vol. 142, No. 3, pp. 37–50 (2013).	A
R. Alasad, I. Motawa, and S. Ogunlana, <i>A System Dynamics-Based Model for Demand Forecasting in PPP Infrastructure Projects – A Case Of Toll Roads</i> (2013).	A
Natalia Lychkina, <i>Innovative paradigms and simulation technologies and their application in management</i> , <i>Bulletin of the University</i> , № 20, January 2013, State University of Management, Moscow.	A
Natalia Lychkina, <i>Innovative Simulation Paradigms and their Application in Management Consulting, Logistics and Strategic Management</i> , <i>Logistics and Supply Chain Management</i> , № 5 (58), October 2013, National Research University Higher School of Economics, Moscow.	A
Natalia Lychkina, <i>Dynamic simulation of socio-economic systems and its application in the information-analytical solutions for strategic management</i> , <i>Business Strategy</i> (January, electronic edition), Financial University under the Government of the Russian Federation, Moscow.	A
Raafat Zaini, Michael Radzicki, Khalid Saeed, Oleg Pavlov, Allen Hoffman and Kristin Tichenor, <i>Strategies for University Growth: A System Dynamics Analysis of Organizational Change</i> , <i>Proceedings of the 31st International Conference of the System Dynamics Society</i> , Cambridge, MA, July 2013.	P
Armin Zawedde and Ddembe Williams, <i>Determinants of Requirements Process Improvement Success</i> , <i>Proceedings of the 31st International Conference of the System Dynamics Society</i> , Cambridge, MA, July 2013.	P
Amaia Sopelana and Martin Kunc, <i>Organisational Flexibility : a simulation model</i> , <i>Proceedings of the 31st International Conference of the System Dynamics Society</i> , Cambridge, MA, July 2013.	P

UngKyu Han and Martin Kunc, <i>Systems Thinking to Understand a Knowledge-producing Triple Helix Innovation Process</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Leonard Malczynski, <i>Cellulosic Feedstock Biofuel Feasibility for Automotive Use</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Lees Stuntz, George Richardson, Peter Hovmand, Anne LaVigne and Paul Newton, <i>Fearless Use of System Dynamics in Education – How You Can Make a Difference!</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Warren Farr, <i>Value and Acceptance of System Dynamics in Business: Business Owner as SD Practitioner Perspective</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Kawika Pierson, <i>Cycles in Casualty: An Examination of Profit Cycles in the Insurance Industry</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
J. Chris White and Robert Sholtes, <i>The Top 7 Myths About System Dynamics</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Worapong Tangkitsiri, Stephen Ogunlana, Adekunle Oyegoke and Michael Oladokun, <i>Dynamic Modelling of User Satisfaction: the Case of the Bangkok Mass Transit System</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Christopher Hughes, <i>Modeling Movie Release Strategies</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Bo Hu, Joachim Block, Armin Leopold and Stefan Pickl, <i>Inclusive growth and sustainable finance - a system dynamics model</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Andras Kovari and Erik Pruyt, <i>Lending to Small and Medium Enterprises: A Novel Approach to Credit Portfolio Management</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Georgios Tsaples, Erik Pruyt, András Kovari and Christos Vasilopoulos, <i>A Shock to the System: How can Land Value Taxation change the Face of Cities?</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Andrew Boyd, <i>Facility Conditions: A System Dynamics Review of the CSU Capital Outlay Program and its Impacts to the CSU, Chico Campus</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Fady Saad, <i>Modeling and Comparing a Startup Dynamics in the US and Egypt</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
Mauricio Becerra Fernandez, Javier Orjuela Castro, Olga Romero Quiroga and Milton Herrera Ramirez, <i>Model for Calculating Operational Capacities in Service Providers Using System Dynamics</i> , Proceedings of the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.	P
J. C. Rodríguez and M. Gómez, <i>Regional Innovation Systems in Emerging Economies: Evidence of System Failures for Innovation</i> , European Forum for Studies of Policies for Research and Innovation (EU-SPRI) Conference, Universidad Autónoma de Madrid. Madrid, Spain (2013).	P

Presentations by SIG Members

<i>Presentation</i>
Kim Warren, <i>System Dynamics: Taking the Opportunity</i> , 2013 Presidential Address, 31st International Conference of the System Dynamics Society, Cambridge, MA, July 21, 2013.
Leonard Malczynski, <i>American Experience's Earth Days</i> , Presentation at the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.
Karim Chichakly and Steven Adler, <i>The XML Interchange Language for System Dynamics (XMILE)</i> , Presentation at the 31st International Conference of the System Dynamics Society, Cambridge, MA, July 2013.
Steven Adler and Karim Chichakly, <i>Big Data Governance Ecosystem Simulations</i> , Presentation at the IBM Information On Demand Conference, Las Vegas, NV, November 2013.
S. O. Ogunlana, <i>What is the value of safety to a starving construction worker? A dynamic modeling of safety</i> , International Conference on Safety, Construction Engineering and Project Management, National University of Technology, Islamabad, Pakistan, August 21-23, 2013.
Natalia Lychkina, Presentation at <i>XIV International Academic Conference on Economic and Social Development</i> , National Research University Higher School of Economics, Moscow, April 2-5.
Natalia Lychkina, Presentation at <i>XVI Scientific Conference on Engineering Companies and Knowledge Management</i> , Moscow, April 25-26.
Natalia Lychkina, Presentation at conference <i>Management Science in Modern Russia</i> , Financial University under the Government of the Russian Federation, Moscow, November 21-22.
Natalia Lychkina, Presentation at 18 th International Scientific and Practical Conference <i>Actual Problems of Management 2013</i> , State University of Management, Moscow, October 30-31.
Natalia Lychkina, Presentation at conference <i>International Youth Forum of Financiers</i> , Financial University under the Government of the Russian Federation, Moscow, December 6-7.
E. Stephens, EA as IT Governance Sustainability, <i>NY IT Leadership Academy</i> , April 2013. http://www.slideshare.net/estephen/ea-governance-ny-it-leadershipacademy-2013-29812243

Relationships with other societies or institutions

Please indicate other institutions and professional or scientific societies with which your SIG maintains a relationship.

The Business SIG *as an entity* has not yet established any formal relationships with other professional societies and their SIGs, working groups, etc. This will change in 2014 with the proposed SIG initiative to assist the Society in an outreach to the annual Winter Simulation Conference (<http://wintersim.org/>) as well as other conferences and societies as recommended by SIG members. The societies that comprise the consortium supporting the Wintersim conference include the American Statistical Association (ASA), Arbeitsgemeinschaft Simulation (ASIM), Association for Computing Machinery/Special Interest Group on Simulation (ACM/SIGSIM), Institute of Electrical and Electronics Engineers/Systems, Man, and Cybernetics Society (IEEE/SMC), Institute for Operations Research and the Management Sciences/Simulation Society (INFORMS-SIM), Institute of Industrial Engineers (IIE), National Institute of Standards and Technology (NIST), and Society for Modeling and Simulation International (SCS).

To gauge the extent of Business SIG member participation in other professional societies, we will be contacting the members before the end of February to determine the societies in which they hold membership and if they are active in technical committees or other leadership roles in these societies. We would also propose that the Society include a field (preferably required for completion of enrollment) in the membership renewal/new member form to capture information about other professional society memberships.

Re SIG relationships with institutions, corporates, or other organizations, the Business SIG is proposing the establishment of Corporate/Organization member category as described below in the section following the table of SIG members. Once established, we intend to reach out to the contact points for each of these Corporate/Organization members and establish a regular communication channel for two-way exchange of information on member benefits, SD-related projects, events, activities, publications, presentations, etc.

In conjunction with its outreach to professional societies of allied fields and selected corporates and other institutions, the SIG also intends to establish communications with the leading vendors of System Dynamics software to help increase our business/market intelligence in support of individual and corporate member outreach and identification of System Dynamics applications in businesses. We may consider approaching this initiative through a form of data syndication so that information contributions (made without attribution or any client-specific account or other proprietary details) entitle the contributor to full access for the complete database of business/market intelligence.

Institutional development

If you have made changes to your constitution or other developments the Society should know about, please mention them here.

There are no developments to report on this topic for 2013.

Business SIG mission

The Business SIG mission statement as put forward to the Society in June 2013 in support of its establishment is provided below.

Purpose

The purpose of the Business Special Interest Group (SIG) of the System Dynamics Society is to promote and support the wider adoption of System Dynamics methodology and best practices in businesses and provide communication channels for recognizing the achievements of System Dynamics practitioners across all business sectors.

Supporting Goals

The Business SIG has several goals that support its overall purpose and mission statement. These include:

People and Businesses

1. Facilitate networking of System Dynamics practitioners in businesses. This effort will leverage the resources of the System Dynamics Society but also those of other professional societies, software vendors, meeting/conference sponsors and organizers, and business leaders.
2. Raise the awareness of System Dynamics, its methodology and achievements, and areas of application among prospective practitioners, business unit leaders, and senior executives across all business sectors.
3. Increase membership in the System Dynamics Society through the efforts noted in items 1 and 2 above. Further, consider collaborating with the Society to create a business member (organization) category with its own dues structure but with the added feature of discounts to dues and other services for employees, executives and partners/directors of the firm who join the Society under the business member affiliation.
4. Increase participation by businesses in events where System Dynamics applications are featured (e.g., specialty conferences, round tables, webinars, sessions at meetings of the Society as well as other professional societies).

Methodology, Resources, and Practices

5. Facilitate improved awareness and access to System Dynamics modelling resources for a broader base of business practitioners.

6. Facilitate greater awareness of best practices in System Dynamics through wider practitioner networking within businesses and collaboration with the Society on contributors and documentation of best practices for the System Dynamics field.

Applications and Achievements

7. Aid in the promotion of and identification of candidates for the Society awards, including the Application Award, that recognize business applications of System Dynamics. Help publicize winners and their achievements and aid in the development of new awards that will improve broadly the recognition of good work done in business using System Dynamics.
8. Support the expansion of the Case Repository and its accessibility through the Society web site. Help improve the review process and support its implementation for both cases and models that are included in the Repository.

Professional Development and Organization

9. Provide a channel for access to contacts and resources that will assist business practitioners in the improvement of their System Dynamics modelling skills and understanding of best practices.
10. Facilitate increased awareness of educational resources and short-term training opportunities available to business practitioners.
11. Facilitate the expansion of web-enabled/web-based resources for supporting business practitioners of System Dynamics (e.g., specialty webinars, speakers bureau, persistent web resources, etc). Coordinate these efforts with the Society's VP Electronic Presence and VP Professional Practice.
12. Collaborate and coordinate with the leaders of other Society SIGs on networking, activities, events, communications, etc where there are obvious overlaps in SIG coverage.

Membership

Membership in the Business SIG is open to all members of the System Dynamics Society as well as non-members who are System Dynamics practitioners and SIG supporters in the business, academic, and government sectors. System Dynamics Society members and other individuals wishing to join the Business SIG may do so by contacting its current representatives, whose contact information will be maintained on the web site of the System Dynamics Society (www.systemdynamics.org) as well as a dedicated web page for the Business SIG which will be linked from the System Dynamics Society site. Business SIG members who are also System Dynamics Society members will be identifiable/searchable in the Society's membership directory.

Meetings and Selection of Representatives

Consistent with the guidelines for all Special Interest Groups of the System Dynamics Society, the Business SIG will meet at least once in a calendar year at the annual meeting of the System Dynamics Society. At this meeting, or at another date approved in coordination with the Society, two leaders will be selected. The process by which this selection is made will be posted to the web site of the Business SIG and the selections will be confirmed by a simple majority vote of the SIG members present at the meeting, which may be a physical or

electronic forum as established jointly with the System Dynamics Society and communicated to the SIG members through its web site or other approved Society channels.

Dues

The Business SIG will not (and cannot) charge any dues. The work of the SIG will be carried out through the voluntary efforts of its members and supporters, whether individual, corporate, or other organization. The SIG reserves the right to engage in activities that require monetary support or payment in kind, but any such payment must be made to a designated individual or other organization and not the SIG as it has no standing to conduct business directly or on behalf of the Society. Representatives of the SIG will determine on a case-by-case basis the payment amount and eligibility conditions for participation for any such activities or events.

Communications

The activities and current list of Business SIG members will be reported annually to the System Dynamics Society. To maintain its recognition by the Society as an established SIG, a minimum of six System Dynamics Society members must be registered as SIG members on an ongoing basis.

The Business SIG will communicate with the System Dynamics Society Policy Council through written reports submitted to the VP Membership.

Reporting of Business SIG activities and events as well as other matters of interest to the SIG members will be provided through the web site for the SIG. The Society will provide the space for this site and provide technical support on an as-needed basis, but the maintenance of its content will be the responsibility of the SIG members.

Founding Sponsors

The names of those System Dynamics Society members from the business community who have indicated their support as founding members of the Business SIG are as follows¹:

Gary Baxter
Henry Carrier
Robert Eberlein
Pascal Gambardella
John Kapson
Fred Kautz

Len Malczynski
Guido Wolf Reichert
Esteban Ribero
Erin Rae Hoffer
James Thompson
Kim Warren

Organizing/Leadership team

Fred Kautz

Kim Warren

Contacts

¹ Support for the establishment of the Business SIG has been offered by each of these Society members by email communication or through their responses posted on the LinkedIn site for WPI System Dynamics.

For additional information please contact:

Fred Kautz

Kim Warren

Bob Eberlein

Members

The stock and inflow of SIG members are important information for the Society. We would like to be able to distinguish between (new) SIG members who are members of the SD Society (Full Members) and (new) SIG members who are not members of the SD Society (Associate Members). Please provide us your best estimate of this information and any additional reflections you deem relevant.

Total number of Full Members this year ²	132
Total number of Associate members this year ²	62
Number of new Associate Members this year ³	62
Number of new Full Members this year ³	132
Number of SIG members who were not Associate Members last year but are Full Members this year	NA
Number of SIG members who were Full Members last year but are not this year	NA
Number of SIG members who were Full Members last year but are not SIG members this year	NA

² SIG membership available at www.systemdynamics.org/web.portal.as.of.01/03/2014. This is just over 11% of the Society membership total (1159).

³ The Business SIG was re-established in 2013.

Additional considerations concerning the members' characteristics or the dynamics of the SIG.

The Business SIG was formally re-established shortly before the 31st International System Dynamics Conference held in July. By the third week in September membership had risen to 34 and by the end of December it stood at 192. Of this total there are 63 Associate SIG members who are not members of the Society (the totals are 194 and 62, respectively, as of 01/03/2014). Although we would clearly prefer and encourage the enrollment of these individuals as regular members of the Society (and we will make an effort to reach out to them to make the case for membership), the fact that nearly a third of the Business SIG members are not Society members can be viewed in at least two ways: (a) it can be seen as an encouraging sign that the Society and the Business SIG are gaining (or maintaining) visibility across a number of professional communities; or (b) it is more simply a reflection of price resistance given the current level of membership dues and perhaps a judgment being made by some that the benefits of membership do not justify the price of admission. [Update: As of 01/08/2014, the SIG membership totals from the web portal show 139 Society members and 44 Associate members, indicating a gain of 10 Society members and loss of 19 Associate members as compared with end of December.]

Based on our experience and research, the current annual membership dues for the Society are quite comparable to those of other professional societies. We recognize that the aggregate impact of multiple society membership dues can be a budgetary issue for many

professionals and academics. Add to this the fact that SIG membership is open to non-members of the Society and further that there are no longer restrictions on the number of SIGs or Chapters than can be joined, it should not be surprising to see a significant fraction of SIG members who are not dues-paying members of the Society. We should continue with the non-member “open door” policy and encourage the widest possible participation in the interchange and activities of the SIGs and Chapters. There are benefits from their participation that will accrue to the Society and the System Dynamics community as a whole, and over time we may see some of these non-members become full members of the Society.

Among the SIG initiatives described below is a proposal for the creation of a corporate or organizational member category. This Society member category could take one of several forms, and there are examples from other professional societies that may offer some useful benchmarks with regard to benefits and society participation. [These will be summarized in a forthcoming memo from Jürgen Strohhecker and Fred Kautz.] One related suggestion is to structure membership dues for employees of corporate/organization members to provide a discount commensurate with the level of corporate/organization support to the Society. The goal is to lower the barriers to individual membership and also encourage workplace support for broader participation in the Society. This is but one of several ideas that are being considered to help increase awareness of the System Dynamics field and increase participation in the SIGs and the Society.

Other initiatives that may have an impact on SIG and Society membership and participation include outreach and collaboration with other professional societies and organizers of topical meetings/conferences. One example (discussed below) would be the Society joining the professional society consortium that sponsors the annual Winter Simulation Conference (<http://wintersim.org/node/8?q=node/11>) and perhaps sponsoring one or more sessions that present works using System Dynamics. Other examples might include the SIGs taking the lead in outreach to other professional societies in their respective fields and collaborating in the sponsoring and hosting of sessions in conferences organized by these societies. To help offset the financial burden of the registration fees for these other conferences, we could consider proposing reciprocity agreements with sister societies that would allow Society members to attend their conferences at the host society member rate and likewise for members of these other societies. Fees for authors could be waived.

One additional note regarding membership and dynamics of the Society and the SIGs: We would like to promote regular communication and collaboration among the SIG leaders. There are common interests and goals that could benefit from such collaboration, and the sharing of ideas and experiences through this collaboration could make the SIGs a more effective voice and resource for support of the Society’s mission.

Business SIG active members ⁴

<i>First Name</i>	<i>Last Name</i>	<i>Email</i>	<i>Society Member</i>
Abdolkarim	Aghili Nasab		
Henk	Akkermans		*
Samuel	Allen		*
Jeuel	Alves		
Amir	Amirani		
Rahayu	Arifin		*
Leif	Asheim		
Samuel	Austin		
André	Baitello		*
Arun	Bajracharya		*
Vladimir	Balyasnikov		*
Salmat	Baoku		
Ruben	Barmat		
Antonio	Barron		*
Collin	Barry		*
Nor Erne	Bazin		*
Gene	Bellinger		*
Clara	Benarto		*
Matthew	Bigman		*
Andries	Botha		*
Sarah	Boyar		*
Andrew	Boyd		*
Miyerlandi	Briceno		
Rujira	Chaysiri		
Karim	Chichakly		*
Ye-seul	Choi		
Fan	Chun		
Alexandru	Ciochina		*
Timothy	Clancy		*

Brett	Collins		*
Seth	Cordes		*
Robert	Crawford		
Peter	Cull		*
Jos	De Neve		*
Ides	De Vos		*
Prakash	Deenapanray		*
Deborah	Deland		*
Julie	Dipuppo		*
Edgar Leonardo	Duarte Forero		*
Ghada	Elkady		*
Tom	Elliott		
Gregory	Engel		*
Petros	Englezos		
Anders	Ericsson		*
Brian	Evarts		*
Amr	Farouk		*
Warren	Farr		*
Erika	Fatma		
Jacques	Fernandez		*
Adolfo	Figuroa		*
Mathias	Fonkam		
Simone	Franceschetti		*
Jan	Frick		*
Bharathiselvan	Ganeswaran		*
Rafael	Garcia Rodriguez		*
Usman	Ghani		*
Emre	Goktepe		
Bruce	Gresh		*
Andreas	Groessler		*
Stueti	Gupta		

Milon	Gupta		
Marc	Haddad		*
Susan	Harris		*
Rolf	Hasanen		*
Nurul Nazihah	Hawari		*
Bill	Hawkins		*
Mark	Heffernan		*
Stephen	Heffernan		
Mariana	Hernandez		
Sonia	Herrera Daza		*
Sterling	Hooten		
Richard	Hubbard		*
Tomas	Hubik		
Christopher	Hughes		*
Valery	Ionkin		*
Daniel	Iyoha-Ojie		
Lee	Jones		*
Dominik	Jung		
Christos	Kalagasidis		
Akira	Kamakura		*
Frederick	Kautz		*
Rossen	Kazakov		*
Saul	Kidde		*
Prasad	Kilaru		
Sebastian	Koepp		*
Hana	Kopackova		*
András	Kovari		*
Roman	Koziol		*
Michael	Krafft		
Thomas	Kuhn		*
Ajith	Kumar		*

Martin	Kunc		*
Lucas	La Roche		*
Graham	Leggett		*
Armin	Leopold		*
Gary	Linneusson		*
Jianguo	Liu		*
Natalia	Lychkina		*
Anton	Lytvyn		
Ed	MacKerrow		
Saku	Makinen		*
Leonard	Malczynski		*
Juan	Martin Garcia		*
Stephen	McIntosh		*
Josué	Medeiros		*
Hannes	Mehrtens		*
Graham	Millar		
Jonny	Miller		
Dipayan	Mitra		*
Francisco	Monteiro		*
Edmilson	Moraes		*
Rodger	Morrison		
Andy	Moysenko		*
Adiba	Muminova		
Frank	Murdock		*
Rudolf	Naderer		
Nima	Nasseri Nosar		
Mihail	Nedelcu		
Willem	Nel		*
Geza	Nemesszeghy		
Julius	Neviera		*
Paul	Newton		*

Grit	Ngowtanasuwan		
Huong	Nguyen		
Charles	Nicholson		*
Jitske	Nijhuis		*
Stephen	Ogunlana		*
Kingsley	Onyekwere		
Javier	Orjuela Castro		
Les	Ormonde		*
Galo	Paiva Cravero		*
Andrzej	Pawluczuk		
Rebecca	Payne		
Penka	Petrova		*
Thebe	Phirinyane		*
Kawika	Pierson		*
K. Sarachandran	Pillai		
Steve	Poppe		
Robert	Powell		*
Richard	Pro		
William	Quarles		
Mukundan	R.		
Anand	Rao		*
Philipp	Rathjen		
Rebecca	Reese		*
Michael	Rehg		*
Guido	Reichert		*
Ryan	Rhoades		*
Esteban	Ribero		*
Robert	Rieg		*
Iilir	Rodiqi		*
José Carlos	Rodriguez		*
Julie	Rousseau		*

Fady	Saad		
Chandra	Sailesh		
Leandro	Salazar Rosales		*
John	Saunders		
Rodrigo	Scartezini		*
Annette	Sharp		*
Wolfram	Siemers		*
Lukas	Sihombing		*
Jose	Simoes		
George	Simpson		
Dodik	Siswantoro		*
Christina	Spencer		*
Eric	Stephens		*
Jon	Sticklen		*
Rosana	Stoica		*
Hasshi	Sudler		*
Nurul	Suhaimi		
Warakan	Supinajaroen		
Mahmud	Syaltout		
Fabian	Szulanski		*
Burcu	Tan		*
Pard	Teekasap		*
Poon	Thiengburanathum		
Edythe	Thompson		*
John	Tittle		
Andrada	Tomoaia-Cotisel		*
Gerald	Turner		*
Charalampos	Tziogas		*
Tathagat	Varma		
Kim	Warren		*
Tsu Kuang	Wei		*

Kevin	Weiss		
Folker	Wergin		*
J. Chris	White		*
Patrik	Wikstrom		
Therese	Williams		*
Yingliang	Xie		*
Auberlet de Chelle	Yvonne		*
Aminah	Zawedde		*

⁴ Listing as of Jan 1, 2014

Total: **192**

Society Members: **129**

Assessment of the closing year

Please elaborate concerning any particular development that may be relevant for the Society.

The current incarnation of the Business SIG has been in existence just over 7 months. The inaugural Business SIG session at the 31st International System Dynamics Conference in Cambridge, held in late July, was well attended and a number of volunteers stepped forward during or after that session to offer their assistance in developing several initiatives that were discussed and recorded. To provide a summary of near-term goals, initiatives, and activities of the Business SIG to date, we have included below the October newsletter contribution for the SIG (<http://www.systemdynamics.org/newsletters/2013-10oct/chapsig.html>) and added a number of supplemental notes in blue font to bring the summary current.

Business SIG Inaugural Meeting and Initiatives

The inaugural meeting of the recently established Business SIG was held on July 24 during the 31st International System Dynamics Conference in Cambridge, MA. The agenda for this well-attended meeting addressed several initiatives and areas for follow-up, including:

Case repository expansion

One of the goals of the Business SIG is to support the expansion of the Case Repository and its accessibility through the Society web site (see <http://cases.systemdynamics.org/>). A new, simplified template for submission of candidate cases has been drafted and will be distributed in the near future.

A draft template and companion go-to-market plan proposed by Matthew Bigman, Seth Cordes and Rebecca Niles is currently under review and will be distributed to Society officers in January.

To increase the visibility and utility of the case repository, we suggested to Karim Chichakly, Bob Eberlein and Steve Adler during the Q&A period for a recent webinar in the *isee Systems* series on XMILE development (for cross-platform transportability and interoperability of models) that we consider including XMILE extensions to model files submitted with cases for the repository. The objective is to make the model files and the case repository more accessible and useful for Society members and others who visit the site. This suggestion was well received, and we will continue the discussion around this initiative in the coming weeks. Karim pointed out the availability of an XMILE sample model archive maintained on the *isee Systems* web site at www.iseeSystems.com/XMILE. This site, labeled the “XMILE Xchange”, suggests a broader initiative that would embed the case repository in a more expansive, Society-supported “file exchange” for System Dynamics that would be similar in spirit to the very successful MATLAB file exchange (www.mathworks.com/matlabcentral/fileexchange/).

A related activity of the SIG will be the identification and promotion of success stories for applications of System Dynamics to business problems. The SIG will use its web presence and collaborate with the Society on the utilization of its communication channels to increase awareness of these success stories.

Corporate/Organization member category

Some preliminary exchange of ideas and background information has occurred in response to the suggestion that the Business SIG help establish a corporate/organization member category in addition to the current individual member category. A corporate membership would be distinct from the corporate sponsor role, but it is expected that corporate sponsors would also be corporate members. Among the various features being considered for this membership category is some form of tiered discount structure to incentivize new member enrollments and renewals among employees as well as other Society benefits. A preliminary investigation of corporate membership benefits and practices in other professional societies has already been completed, and a draft list of specific features and benefits being considered for a new corporate member category for the Society is expected to be circulated for review later this fall.

Recent research by Jürgen Strohhecker and Fred Kautz on examples of corporate/organization member categories in other professional societies will be summarized in a forthcoming background memo on this proposed member category initiative. This memo will also contain a draft outline of proposed corporate/organization member benefits for review and discussion by the Society. Among the several examples of a corporate member category to be included in this memo are those of SPIE (<http://spie.org/x1724.xml>), the international society for optics and photonics, AIAA (<http://www.aiaa.org/Secondary.aspx?id=228>), the American Institute of Aeronautics & Astronautics (Fred Kautz was active member and in Technical Committees for many years), SIAM (<http://www.siam.org/membership/corporate.php>), the Society for Industrial and Applied Mathematics, and ACM (<http://www.acm.org/membership/panel?pageIndex=4>), the Association for Computing Machinery.

Business/market intelligence

One proposed initiative currently in discussion is a form of data syndication that would be based on contributions by leading System Dynamics software providers and other market participants of anonymous (i.e., no software vendor identification) selected business client profile info (e.g., business sector/type, region, number of users, business name if already in the public domain). The notion of data syndication is that contributors to the database would have access to the entire contents of the database once assembled. It is one idea (among others) for gaining a better understanding of the breadth and depth of the market for System Dynamics and the distribution of practitioners across businesses. One goal is to use this added business intelligence re System Dynamics usage to facilitate a more effective outreach and networking initiative (leading hopefully to more case study contributions and increased society/SIG participation) as well as to provide the software vendors and others a better view of the extent of the current market presence for System Dynamics tools and users.

Society/conference collaborations

Among the most underutilized venues for raising the profile of System Dynamics and its many business applications are the various simulation related conferences and sessions sponsored by a number of professional societies and consortia. Included in this group for example would be the annual Winter Simulation Conference, typically held in December and organized by a consortium of leading professional societies (<http://wintersim.org/node/8?q=node/11>)

including American Statistical Association (ASA), Arbeitsgemeinschaft Simulation (ASIM), Association for Computing Machinery/Special Interest Group on Simulation (ACM/SIGSIM), Institute of Electrical and Electronics Engineers/Systems, Man, and Cybernetics Society (IEEE/SMC), Institute for Operations Research and the Management Sciences/Simulation Society (INFORMS-SIM), Institute of Industrial Engineers (IIE), National Institute of Standards and Technology (NIST), and Society for Modeling and Simulation International (SCS). This professional society group could be a desirable partner for the Society's efforts to increase awareness and use of System Dynamics across a wider range of businesses and applications. There is a wide variety of annual conferences and topical or specialty meetings organized by INFORMS, ACM, IEEE, and many other societies (including AOM), many of which could be considered candidates for joint or sponsored sessions that showcase the work of System Dynamics practitioners and researchers.

During the SIG discussion on this subject, it was suggested that the SIGs serve as the primary channel for collaboration with other professional societies in establishing Society-sponsored or joint society conference sessions relating to System Dynamics applications in areas covered by these professional societies. The Business SIG community will be establishing contact with selected professional societies in the coming months to explore opportunities for developing sessions or session slots for System Dynamics practitioners to present their work.

In support of this initiative, the SIG will poll its members for memberships in other professional societies. The expansion of this professional society registry effort to other SIGs and Chapters will be discussed with the national office of the Society to increase the contact points for other societies.

In addition to conference collaborations, the SIG will be exploring other venues for increasing awareness of System Dynamics, its methodology, and achievements in business applications such as roundtables and webinars hosted for consultants, business leaders, business practitioners, etc.

Practitioner outreach, networking, communications

A number of ideas were surfaced at the SIG session on the topic of practitioner outreach and networking. One suggestion was to work more closely with the universities that offer System Dynamics courses and degree programs (whose faculty are typically well represented at Society conferences) to track the business destinations of their students. The alumni organizations at these universities are a potential resource in addition to the faculty, particularly in the case of students who have been in the workforce for several years and who may have changed employers.

Another suggestion put forward was the adoption of CRM (Customer Relationship Management) tools and techniques to assist the SIGs and Chapters in networking, developing new members, tracking activities and initiatives, and collaborating across SIG/Chapter lines. It was noted that this sort of initiative may have to be sponsored and driven by the Society if a common CRM platform is to be adopted for all SIGs and Chapters, which may have benefits for the membership data management by the Society.

To further promote the role of the SIGs in member outreach, communications, and technical leadership for the Society, we would like to propose that the Society consider tasking the SIGs

with composing a year-end technical summary (1-3 pages suggested length) of noteworthy efforts and accomplishments in System Dynamics applications and methodology development for the subject areas covered by their respective groups. These technical summaries could be published together on the Society's web site or individually on the SIG web pages. Such year-end summaries are similar in concept to those of the Technical Committees of the AIAA and other societies.

Application Award nominees

One of the designated activities of the Business SIG is to aid in the promotion and identification of candidates for Society awards, including the Application Award. This award recognizes noteworthy business applications of System Dynamics, and the SIG community will be sharing observations and recommendations on this award in the coming months in preparation for the 32nd ISDC in Delft next summer.

An additional initiative in the awards area that we would like to put forward for consideration by the Society is an award that would be made annually or bi-annually by each SIG in collaboration with the Society. This could help elevate the role of the SIGs in communicating System Dynamics applications and accomplishments on broader scale and also promote greater awareness of the case repository and proposed "SD file exchange."

Plans for 32nd ISDC, Technical University Delft

The next annual meeting of the Business SIG will be held at the 32nd ISDC in Delft, July 20-24, 2014. In addition to reporting on the progress of various activities and initiatives of the SIG, the SIG community will be assisting the Society well in advance of this meeting to identify session topics and work of business practitioners that should be considered for the conference.

Election of two leaders for the SIG

The Business SIG session held during the Cambridge conference in July served as the SIG's annual meeting, at which time two leaders are elected to lead the SIG for the year. Elected by acclamation at the session were Fred Kautz of Berkeley Research Group and Raafat Zaini of WPI.

Membership

Membership in the Business SIG currently stands at **194 as of 01/03/2014**. Group membership for the Business SIG on LinkedIn currently stands at **115**.

As noted on the SIG's web page (see link below), membership in the Business SIG is open to all members of the System Dynamics Society as well as non-members who are System Dynamics practitioners and SIG supporters in the business, academic, and government sectors.

Business SIG on the web

The SIG has established a web page within the site for the System Dynamics Society at <http://sigs.systemdynamics.org/business/> as well as a page on the LinkedIn networking site at http://www.linkedin.com/groups/Business-SIG-System-Dynamics-Society-5083395?trk=myg_ugrp_ovr. Updates on SIG activities and related developments will be posted to both web sites.

Email for the SIG can be directed to business@sigs.systemdynamics.org and discussion threads can be posted to the SIG's page on LinkedIn.

The coming year

Challenges

What are the opportunities the SIG plans to take, or challenges you plan to approach during the coming year?

Most of the challenges summarized briefly below are discussed in the previous section, in which case reference will be made to the relevant pages.

1. Expanding the size and utility of the Case Repository and its model archive

As discussed on pp. 7 and 18, one of the goals of the Business SIG is to support the expansion and increased utility of the Case Repository currently maintained on a Society web site (<http://cases.systemdynamics.org/>). A new template for submission of candidate cases and supporting models is currently under review and will be distributed for wider comment in the near future. In addition, as discussed on p. 18, we are proposing that the Business SIG participate in a pilot effort in collaboration with isee Systems to include XMILE extensions to model files submitted in support of cases. We envision this as a step towards the establishment of a more broadly based "System Dynamics File/Model Exchange" that could be hosted directly by the Society or in collaboration with a third party platform provider.

2. Increasing awareness and adoption of System Dynamics by businesses

Among the initiatives aimed at responding to this challenge are (a) improving business/market intelligence on practitioners and applications of System Dynamics in businesses, (b) identifying and recognizing notable applications of System Dynamics in the global business community, (c) creating a new Corporate/Organization member category to help engage a wider business audience and facilitate greater communication and collaboration, (d) expanding the SIG and Society contacts with professional societies in allied fields with a view toward developing joint conferences and cross-conference session offerings, and (e) expanding the size, scope and utility of the case repository and its models toward a more widely accessible and usable "System Dynamics File/Model Exchange."

3. Promoting membership in the Business SIG and the Society

As discussed on pp. 19-20, there are several challenges facing the Society and the SIGs in trying to increase membership and promote greater participation in the System Dynamics field and the work of the Society. Among these challenges are:

- a) Improving our business/practitioner market intelligence, i.e., identifying the "who/what/where/how" of businesses and individual practitioner pursuits and developments that relate to System Dynamics in general and business applications in particular;

- b) Raising awareness of the field of System Dynamics and the role and activities of the SIG and the Society;
- c) Improving networking and resources for both Society members and nonmembers in allied fields (or in System Dynamics) to promote communications, collaboration, and active support of the SIG and the Society;
- d) Identifying and recognizing notable accomplishments related to business applications of System Dynamics.

In an effort to meet these challenges, the Business SIG intends to reach out through the student, alumni, and faculty networks of universities offering System Dynamics programs, the representatives and Society members in businesses which are sponsors or prospective corporate/organization members (under the proposed member category discussed below and on pp. 18-19), and the membership networks of the other SIGs to solicit their inputs, build out our knowledge base and contact networks, and develop a coordinated plan of action that will make progress toward our goals.

Kim Warren, a co-founder of the Business SIG, provided in his Presidential Address to the Society at the 2013 International System Dynamics Conference a System Dynamics-based view of the interrelationships among the key stocks, flows, and variables of the profession. More detailed SD model views of the profession have been presented in the strategy report submitted to the Policy Council by the Strategy Committee (of which Kim Warren was a member along with David Lane, David Ford, Ed Anderson, Jim Lyneis, Birgit Kopainsky, and Erling Moxnes) early in 2013. It is this sort of systems thinking (and supporting models) about the System Dynamics profession and the Society's strategy that we would like to see integrated into the strategic planning and execution of initiatives by the SIGs in coordination with the Society. [If SD is as powerful as we say (and know) it is, then why not apply it more regularly to our own strategic challenges?] It is our view that this systemic approach to the work of the SIGs (and the Society) may help us identify more clearly (and perhaps sooner) the areas where we can best apply our limited resources to achieve desired outcomes and develop more effective strategies to address the challenges described here.

4. Promoting adoption of a corporate/organization member category

As discussed on pp. 18-19, this proposed member category is intended to promote the engagement of the Society and its members with a broader range of businesses and organizations and facilitate increased communication and collaboration regarding the methodology, resources, benefits and applications of System Dynamics. Following the examples of several other professional societies (including SPIE, AIAA, SIAM, and ACM), this corporate member category is also intended to increase individual membership in the Society and its SIGs (in part through various services and discounts on annual dues and event fees), provide unique resources and networking opportunities for the employees of these corporate members, and engage these firms/organizations as active supporters of the mission of the Society and collaborators in the development of the System Dynamics field more generally.

5. Facilitating broader collaboration and participation by the SIGs and the Society in the conferences and topical meetings hosted by the professional societies of allied fields

The response to this challenge is closely tied to challenges 2 and 3 above. Proposed initiatives in this area are discussed on pp. 19-20.

Planned activities

Which activities (like workshops, courses or seminars) does the SIG plan to perform during the coming year?

1. Kim Warren is planning webinars for the Business SIG to be held in February and/or March. Details on the agenda and scheduling will be forthcoming soon.
2. A series of web-assisted interchange sessions in support of the collaboration between the Business SIG, Leverage Networks, and isee Systems on a communications and social media pilot project will be developed in the coming months. This initiative is intended to include requirements development for Customer Relationship Management (CRM) functionality to assist the Society and the SIGs with networking, development of new members, tracking of activities and initiatives, and supporting other forms of collaboration.
3. The SIG will assist in organizing and hosting conference calls and web sessions for the purpose of discussing new submission templates and other support for an initiative to expand the size and utility of the current Case Repository. Included in this initiative will be the proposed pilot effort to include XMILE extensions to models submitted in support of cases, with a view toward developing a more expansive and usable Society-supported “file exchange” for System Dynamics that would be similar in spirit to the very successful MATLAB file exchange.
4. The Business SIG will be collaborating with the Society to pursue an outreach initiative with professional societies in allied fields. One candidate being considered is the Winter Simulation Conference, which is hosted by a consortium of societies that includes the American Statistical Association (ASA), Arbeitsgemeinschaft Simulation (ASIM), Association for Computing Machinery/Special Interest Group on Simulation (ACM/SIGSIM), Institute of Electrical and Electronics Engineers/Systems, Man, and Cybernetics Society (IEEE/SMC), Institute for Operations Research and the Management Sciences/Simulation Society (INFORMS-SIM), Institute of Industrial Engineers (IIE), National Institute of Standards and Technology (NIST), and Society for Modeling and Simulation International (SCS).
5. The SIG will be using the email broadcast channel on the web portal as well as the SIG’s LinkedIn group page and Society-hosted web page to communicate and exchange information with members on developments and initiatives of interest to its members. Both the LinkedIn group and the Business SIG are open to those who are not members of the Society.

6. The SIG will be hosting internal calls in support of preparations for the 32nd ISDC in Delft. The agenda for the Business SIG annual meeting, session proposals, and support of paper submissions will be topics for discussion and action.
7. We are currently developing a System Dynamics model of the SIG and Society operating environments to test our understanding of the key elements and their interrelationships as well as to explore strategies for fulfilling the initiatives outlined in this report. Raafat Zaini at WPI, the co-leader of the Business SIG, has already completed a preliminary model for this effort, and we will be sharing this model with Society and SIG leaders once we have developed it further and acquired needed data inputs from the Society. This effort is in the same spirit as the modeling that Kim Warren has done in support of the Society strategy analysis reported by the Strategy Committee.

Support required

What would you ask the Society to do to help the SIG?

1. Assist the SIG in an outreach to the professional society consortium supporting the Winter Simulation Conference (www.wintersim.org) so that the System Dynamics Society can join this conference consortium as a regular member. The Business SIG can “co-sponsor” this initiative and assist in fact finding and assessment of the benefits and obligations that would accrue to the Society and its members. It would seem appropriate to have the Society be the lead party (supported explicitly by the Business SIG and perhaps other SIGs) in this particular outreach as it involves an interface with several other professional societies at the “executive” leadership level (although there are some SIGs providing the primary interface for their parent societies).

The Winter Simulation Conference (“Wintersim”) is typically held in December, and an initial step in the consortium participation could be to sponsor a session or two to raise the profile of System Dynamics (and the Society) within the other societies and their membership. The SIG is open to suggestions regarding next steps, including consideration of other conferences or topical meetings as collaborative ventures. In other professional societies (particularly in engineering and the physical sciences) it is not uncommon to see joint society conferences on selected areas of overlapping interest or mission. This was certainly the case with AIAA, for example, where Fred Kautz was active for many years.

There are other professional society conferences and topical meetings that may be of interest as collaborative ventures for the SIG (perhaps ahead of, or in lieu of, the approach to the Wintersim consortium), and these will be referred to the Society for discussion once they are raised to the level of an action item by the SIG membership.

2. Assist the SIG in the establishment and promotion of the Corporate/Organization Member category, as discussed on pp. 18-19. Once a background memo on this initiative by Fred Kautz and Jurgen Strohhecker has been submitted to the Society, the SIG will be looking for guidance on next steps and the required structure and content of a formal proposal to be submitted to the Policy Committee.

3. Assist the SIG in an initiative to evaluate and adopt some form of common “Customer Relationship Management” (CRM) and social media-enabled platform (possibly hosted through the Society’s web site) that can be used across the Society and its SIGs and Chapters to facilitate networking, developing new members, tracking activities and initiatives, and supporting other forms of collaboration between the SIGs and Chapters as well as external organizations and groups (e.g., professional societies and their SIGs, corporate members, etc.). This initiative is discussed briefly on p. 20 with updates in item 2 on pp. 23-24. It was discussed at the convocation of the SIG leaders during the 31st International Conference of the System Dynamics Society in Cambridge this past July, and a follow-up conference call involving isee Systems (Karim Chichakly and Bob Eberlein), Leverage Networks (Rebecca Niles and Kate Skaare), and the Business SIG (Fred Kautz) was held on Nov. 14. The Business SIG is proposed as a pilot environment for this initiative with collaboration and assistance requested from the Society. A detailed proposal with requirements and implementation plan will be developed this year in collaboration with the Society, isee Systems, and Leverage Networks.

4. Assist the SIG in the adoption of a new case/model submission template (draft currently under review by the SIG) and go-to-market strategy in support of an expansion of the Case Repository to include XMILE extensions to supporting models. As discussed on p. 18, we are proposing that the Business SIG participate in a pilot effort (in collaboration with isee Systems) to include these extensions to model files maintained by the repository. This could be considered a step towards the establishment of a more broadly based “System Dynamics File/Model Exchange” that could be hosted by the Society directly or in collaboration with a third party platform provider.

Conflict, Defense, and Security – missing

Education – missing

Energy

Annual Special Interest Group (SIG) Report

<i>SIG:</i>	Energy
<i>Year:</i>	2012 – 2013 (December report)
<i>Officers</i>	
President:	Isaac Dyner
SIG-society liaison:	Stian Hackett (assistant to Isaac Dyner)
Webmaster:	María Camila Ochoa (LinkedIn forum)
<i>Website:</i>	http://www.linkedin.com/groups?gid=4030084&trk=myg_ugrp_ovr
<i>Last update:</i>	

The past year

SIG development

Activities

Please list all activities organized by the SIG as such in the table below; insert rows as needed.

<i>Activity</i>	<i>Date</i>	<i># Attendees</i>
LinkedIn discussion group – various topics	Throughout the year	Group has grown to ca. 250 followers
Planning of potential SDR virtual issue	Spring / Summer 2013	
Planning of Webinars	Planning in the fall 2013, starting February 2014	

Publications

Please list relevant publications in form of books, chapters, articles and conference proceedings; add rows as needed. "Type" should be coded as follows: A=article; B=book; C=chapter;P=proceeding;S=software.

<i>Publication</i>	<i>Type</i>

Relationships with other societies or institutions

Please indicate other institutions and professional or scientific societies your SIG maintains a relationship with. Add rows as needed.

Latin American Chapter of the SD society

Institutional development

If you have made changes to your constitution or other developments the Society should know about, please mention them here.

Members

The stock and inflow of chapter members is an important piece of information for the Society. In addition we would like to be able to distinguish between (new) SIG members that are members of the SD Society (Full Members) and (new) SIG members who are not members of the SD Society (Associate Members). Please provide us you best estimate of this information and any additional reflections you deem relevant.

Total number of Full Members this year	164 nonrenewed, 214 current (December 2013)
Total number of Associate Members this year	144 nonrenewed, 160 current (December 2013)
Number of new Associate Members this year	unknown
Number of new Full Members this year	34 nonrenewed, 84 current (since July 2012)
Number of members associated to our Likedin network	255

Number of chapter members who were not Associate Members last year but are Full Members this year	N/A
Number of chapter members who were Full Members last year but are not this year	N/A
Number of chapter members who were Full Members last year but are not chapter members this year	N/A

Additional considerations concerning the members' characteristics or the dynamics of the chapters

As recommended by the Society, we will rely on the Society's own membership management system and lists from now on. In this report we have reported both "current members" and "nonrenewed members" from the tracking system. These numbers are used in the table above. The "number of new full members" is estimated from the number used in our last report, submitted in July 2013 (158 members) and its growth at that time since July 2012 (+28).

In addition to Society members and associate SIG members, the Energy SIG also has a LinkedIn discussion forum with about 250 members. There is considerable overlap between this forum and the SIG: Some forum members are not SIG members, and some SIG members are not on the forum.

Please note that in the previous (July) report, we classified the LinkedIn forum members as "associate members". Thus, the definition of this is different in the two reports.

Please list the SIG's active members in the table below. Add rows as needed.

This is copied from the Society's membership tracking system, using the category "current members"

Last	First	Email	Society Member
Williams	Ddembe		*
Zgorzelski	Maciej		
Koenig	Ulli		*
Kojima	Takahiro		
Goncalves	Paulo		*
Graham	Alan		*

Graul	Michael		*
Guneralp	Burak		*
Gunkler	John		*
Haug	Peter		
Howick	Susan		*
Huerta	Juan		*
Hughes	Maxwell		
Jacobus	Greg		
John	Richard		
Kampmann	Christian Erik		*
Kapmeier	Florian		*
La Roche	Lucas		*
Lee	Tsuey-Ping		*
MacDonald	Roderick		*
Macedo	Julio		
Mauch	Corine		
Moon	Tae Hoon		
Morecroft	John		*
Morozowski	Marciano		*
Morris	Don		*
Myers	Rodney		
Parra Valencia	Jorge Andrick		*
Prasad	Naghi		
Ratanawijitrasin	Sauwakon		
Rees	David		*
Rouwette	Etiënne		*
Silbert	Loren		
Smith	Casey		*
Stamboulis	Yeoryios		
Struben	Jeroen		*
Traboulsi	Samir		*
Trijssenaar	Anton		*
Pillai	K. Sarachandran		
Arango	Santiago		*
Newton	Paul		*
Harris	Susan		*
Thissen	Wil		*
Winebrake	James		
Blaskovich	Frank		*
Conrad	Stephen		*
Murray	Robert		*
Ulli-Beer	Silvia		*
Varelis	Angelos		*
Loucopoulos	Pericles		
Elter	John		*
Banerji	Himadri		
Medin Molina	Joaquin		*
DeMeulle	Brian		

Burns	James		
Choi	Nam Hee		*
Coppus	George		*
De Neve	Jos		*
Di Stefano	Julia		*
Dudley	Richard		*
Dyner	Isaac		*
Els	Sharon		*
Eubanks	Keith		
Fiddaman	Thomas		*
Ford	Andrew		*
Forrest	Jay		*
Jones	Lee		*
BenDor	Todd		*
Barreto	Allan		
Wu	XiJun		*
Bedoya-Valencia	Leonardo		*
Yucel	Gönenc		*
Cavalieri-D'Oro	Edoardo		
Bar-On	Isa		*
Jones	Charles		*
Mandl	Christoph		*
Mitra	Dipayan		*
Morrison	James		
Bassi	Andrea		
van Hooff	Paul		*
Tan	Burcu		*
Custodio	Isaías		*
Contestabile	Marcello		
Elwood	Colin		*
Assuad	Carla		
Taib	Md Yusoff		*
Black	Jason		
Van Den Durpel	Luc		
Hollmann	Maik		
Siegel	Michael		*
Choucri	Nazli		*
Moorthi	Grzegorz		*
Elmoselhy	Salah		
Murdock	Frank		*
Jay	Jason		
Welch	Cory		
Taylor	Timothy		*
Franck	Travis		*
Nartey	Charles		*
Santos	Joaquim		*
Steel	Katherine		
Pospisil	Oliver		

Bosshardt	Mathias		
Hernandez	Hugo		
Roman	David		*
Maimaris	Athanasios		*
Aamir	Munaf		*
Da Silva	Orlando		*
Dutto	Maria Emilia		
Garcia Fernandez	Jofrant		
Kossik	Rick		*
Westin	Henrik		
Franco	Carlos		
Ibrahim	Jafni		
Jia	Jianguo		*
Katt	Chin Shi		*
Wansart	Joerg		
Jaeger	Tobias		
Papachristos	George		*
Charles	Ebitei		*
Novak	Margaret		*
Allam	Georges		*
Parayno	Phares		
Frenchman	R. Michael		
Ingason	Helgi		*
White	J. Chris		*
Radhakrishnan	Haridas		
Moeis	Armand		*
Onuk	Murat		
Chiong Meza	Catherine		
Huang	Lizhen		*
Rabelo	Luis		
Najd	Nizam		*
Karstad	Per Ivar		
Moretro	Frode		*
Franco	Flavio		*
Nnoli	Okechukwu		
Hacunda	James		*
Dvorsky	Lubomir		
Chroni	Anna		
Boyar	Sarah		*
Stevenson	Richard		
Linneusson	Gary		*
O'Rourke	Kevin		
Powers	Robert		*
Kim	Ben		*
Geopani	Metrini		
Barron	Antonio		*
Sahin	Sercin		*
Hernandez	Sergio		

North	Karl		
Adeniran	Ezekiel		*
Giraldo	Diana		
Koreisha	Nicholas		
Mezher	Toufic		
Politou	Alexandra		
Olaya	Yris		*
Hu	Bo		*
Ogunlana	Stephen		*
Alzerreca	Mauricio		
Nuttall	William		*
Okoro	Samuel		
Maragos	Evangelia		
Staver	Benjamin		*
Moraes	Edmilson		*
Lam	Sean		
Ng	Adam		
Kandybin	Alexander		
Sankara	Vishy		*
Balnac	Kailash		
Pacheco	Jose		
Lee	Carmen		
Zoreda-Lozano	Juan		
Vettier	Vincent		*
Mauro	Louis		
Copin	Stephane		
Shepherd	Simon		*
Gladwin	Thomas		
Santos	Erico		*
Dykes	Katherine		*
Tomo	Haryo		*
Singhal	Mayank		
Bigman	Matthew		*
Schmidt	Susanne		
Musango	Josephine		*
Brent	Alan		*
Ochoa	Camila		
Yadama	Gautam		*
Geistauts	George		
Jacoby	David		
Ratcliff	Christopher		
Amlin	Jeff		*
Wasbes	Jeffrey		*
Pate	Ron		
Deenapanray	Prakash		*
Lowry	Thomas		
Gritzner	Bernhard		*
Deland	Deborah		*

McGoey	Paul		*
Mu	Dong		*
Jeffers	Robert		*
Chan	Shek Kiu		
Ardawatia	Himanshu		
Halog	Anthony		
Keith	David		*
Shemwell	Scott		
Kautz	Frederick		*
Kauffman	Morgan		
Taes	Frédéric		
Weislik	Mike		
Sewalk	Stephen		*
Park	Randy		*
Sukhodolska	Lana		
Hughes	Christopher		*
Metcalf	Jordan		
Wang	Ranran		*
Tappe	Achim		*
Gray	Matthew		*
Goh	Yang Miang		
Jordan	Rhonda		*
Hong	Jung Suk		
Davies	Evan		*
Baitello	André		*
Hidayatno	Akhmad		*
Emadi	Seyed Emad		*
Luque y Guzman Saenz	Guillermo		
Osam	Shirley		*
Christiansson	Jens		*
Krishnayya	Jaswant		
Reddi	Krishna		
Choudhari	Mark		
Lim	Che Han		*
Trusina	Inese		
Kleemann	Max		*
Sihombing	Lukas		*
Sutrisno	Aziiz		
R.	Mukundan		
Li	Shiying		
Atencio	Charles		*
Veziroglu	Ayfer		*
Einarsson	Rasmus		
Bryant	Jake		
Miller	Richard		*
Lipinsky	Edward		*
Somogyvari	Marta		*
Cardenas	Laura		*

Stoica	Rosana		*
Barahona Garzon	Braulio		
Happach	Roland Maximilian		*
Nasser	Ivana		*
Simonelli	James		*
Leopold	Armin		*
Hackett	Stian		*
Alias	Emmy Farha		*
Bagayat	Dhananjay		
Rehg	Michael		*
Katzper	Meyer		*
Moulton	Taylor		*
Wergin	Folker		*
Rosidin	Nanang		*
Ganeswaran	Bharathiselvan		*
Slettemark	Gaute		*
Ziada	Sherif		
Mbasuen	Timothy		
Hamza	Kanar		
Alexiev	Victor		
Barbari	Tim		
Nuss	Philip		*
Onkham	Wilawan		*
Quintero	Braulio		*
Wassink	Casper		*
Morgan	Pamela		*
de Gooyert	Vincent		*
Tong	Hefeng		
Pillay	Nalini		*
Adler	Steven		*
Park	Kyungbae		
Utomo	Dhanan		*
Nel	Willem		*
Teo	Kwong Meng		
Freeman	Rachel		*
Kubli	Merla		*
Ahmed	Hassan		*
Andrison	Aswin		
Houghton	James		*
Liu	Jianguo		*
Oladokun	Michael		*
Woodcock	James		*
Ntegiannis	Georgios		
Neviera	Julius		*
Jung	Dominik		
Grace	William		*
Till	Robert		*
Walker	La Tonya		*

Kaslik	Pete		*
Barry	Collin		*
Sharp	Annette		*
Karountzos	Ioannis		*
Mukherjee	Atanu		*
Carter	Claire		*
Tziogas	Charalampos		*
Klemens	Jeffrey		*
Brambilla	Massimo		*
Cedres	Stewart		*
Al Yaquob	Amin		*
Helmi	Syed Ahmad		*
Densmore	Sabin		*
Balyasnikov	Vladimir		*
Cai	Lin		*
Gautam	Nabaraj		
Gupta	D. N.		*
Frick	Jan		*
Olson	Carol		*
Havel	Timothy		*
Csala	Denes		
Rooney-Varga	Juliette		*
Sakhrani	Vivek		
Villa Betancur	Sebastian		
Vytlacil	Dalibor		
Gumerov	Sergey		
Chernicoff	William		*
Jan	Muhammad		
Alsaati	Adnan		
Diaz Espinosa	Mauricio		
Zhu	Qin		*
Clayton	Alan		
Cagulada	Amy		
Niam	Chiang Meng		*
Libby	Bradd		
Hartvigsson	Elias		
Fernandez	Jacques		*
Smith	Raymond		*
Moler Mollo	José Antonio		
Al-Ahmed	Khalid		
Gignac	Renaud		*
Arifin	Rahayu		*
Allen	Samuel		*
Falebita	Oluwabunmi		*
Freise	Jon		*
Basulto Solis	Yanet		
Marston	Phillip		*
Ziemer	Norb		

Ausinheiler	Jess		
Klein	Gernot		*
Nasseri Nosar	Nima		
Iversen	Michael		*
Matthew	George		
Sepulveda Estay	Daniel		*
Kumar	Ajith		*
Markou	Yiannis		*
Vergez	Coralie		
MacKerrow	Ed		
Aghili Nasab	Abdolkarim		
Mutanga	Shingirirai		
Jacobson	Ryan		
Evarts	Brian		*
Haibach	Patrick		
Carnohan	Shane		*
Saiyed	Zahraa		
Alva Lizarraga	Sara		
Kangas	Ioannis		
Goktepe	Emre		
Fonkam	Mathias		
Babayigit	Elif		
Eom	Daye		
Attiya	Marwa		
Prabhu	Vittal		
Thiengburanathum	Poon		
Ramaget	Tristan		
Valdes	Pedro		
Elliott	Tom		
Naderer	Rudolf		
Joubert	Riaan		
Syaltout	Mahmud		

Total: 374 Society Members: 214

Your assessment of the closing year

Please elaborate concerning any particular development that may be relevant for the Society.

Conference participation was significant in number of papers, concurrent sessions and plenary presentations

The coming year

Challenges

What are the opportunities the SIG plans to take, or challenges you plan to approach during the coming year?

Growth. We believe that this may be accomplished if we manage to hold the planned webinars.

Planned activities

Which activities (like workshops, courses or seminars) does the SIG plan to perform during the coming year?

A set of webinars

Support required

What would you ask the Society to do to help the SIG?

To wave registration fees to attend the forthcoming SD conference to two postgraduate students that facilitate the planned webinars. This, should be offer in January 2014

Environmental – august 2013

Annual Special Interest Group (SIG) Report

<i>SIG:</i>	Environmental SIG
<i>Year:</i>	2012 - 2013
<i>Officers</i>	Asmeret Bier
President:	Max Kleeman
SIG-society liaison:	Nicolás Escalante Mora
Webmaster:	
<i>Website:</i>	http://sigs.systemdynamics.org/environmental/
<i>Last update:</i>	September 2012

The past year

SIG development

Activities

Please list all activities organized by the SIG as such in the table below; insert rows as needed.

<i>Activity</i>	<i>Date</i>	<i># Attendees</i>
Environmental SIG Meeting	July 2012	17

Publications

Please list relevant publications in form of books, chapters, articles and conference proceedings; add rows as needed. "Type" should be coded as follows: A=article; B=book; C=chapter;P=proceeding;S=software.

<i>Publication</i>	<i>Type</i>
Insert	

Relationships with other societies or institutions

Please indicate other institutions and professional or scientific societies your SIG maintains a relationship with. Add rows as needed.

Institutional development

If you have made changes to your constitution or other developments the Society should know about, please mention them here.

Members

The stock and inflow of chapter members is an important piece of information for the Society. In addition we would like to be able to distinguish between (new) SIG members that are members of the SD Society (Full Members) and (new) SIG members who are not members of the SD Society (Associate Members). Please provide us you best estimate of this information and any additional reflections you deem relevant.

Total number of Full Members this year	190
Total number of Associate Members this year	
Number of new Associate Members this year	
Number of new Full Members this year	
Number of chapter members who were not Associate Members last year but are Full Members this year	
Number of chapter members who were Full Members last year but are not this year	
Number of chapter members who were Full Members last year but are not chapter members this year	

Additional considerations concerning the members' characteristics or the dynamics of the chapters

Please list the SIG's active members in the table below. Add rows as needed.

<i>First Name</i>	<i>Middle Name</i>	<i>Last Name</i>	<i>Organization</i>	<i>Email</i>
Toru		Suetake	Japan Futures Research Center	
Heather		Skaza	University of Nevada Las Vegas	
Lee	C.	Jones	Ventana Systems UK	
Richard	G.	Dudley	Cornell University	
Eliot		Rich	University at Albany	
Donald		Robadue	Coastal Resources Center	
Nabil		Mikati	XLNT Performance	
Susanne		Tepe	RMIT University	
Jēkabs	O.	Trušiņš	Spatial and Regional Dev Research	
Edward	J.	Garrity	Canisius College	
Taylor		Moulton	MIT	
Jill	H.	Slinger	Delft University of Technology	
Travis		Franck	Climate Interactive	
Andrew	P.	Jones	Climate Interactive	
Patricia	M.	Craig	Complexity Management Inc	
Thokozani	T.	Simelane	Africa Institute of South Africa	
Frederick		Kautz	Berkeley Research Group	
Benjamin		Witherell	Montclair State University	
Ian		Roderick	Schumacher Ins for Sustainable Systems	

Thomas		Fiddaman	Ventana Systems	
Edward	S.	Lipinsky	Innovative Thinking Inc	
John	M.	Richardson	Lee Kuan Yew School of Public Policy	
Luis	Orlindo	Tedeschi	Texas A&M University	
James	M.	Lyneis		
Torgeir		Brandsar		
Warren	W.	Farr	Refrigeration Sales Corporation	
George		Papachristos	Delft University of Technology	
Jack		Pugh		
Rebecca		Niles	Systems Thinking Collaborative	
Laura		Schmitt Olabisi	Michigan State University	
Alan	Harold	David	University of Westminster	
Ayfer		Veziroglu	Instituto Superior Técnico	
Wayne		Wakeland	Portland State University	
Stephen		Sewalk	University of Denver	
Derek		Burrows	Evans & Peck Pty Ltd	
John	Rodney	Franklin	The Kuehne Logistics University	
Nasim		GhanbarTehrani	Tarbiat Modares University	
Pete		Kaslik	Pierce College	
Antonio Claudio	C. G.	Lellis Vieira	LV Participações	

Achim		Tappe		
Allyson		Beall	Washington State University	
Stephen	H.	Conrad	Sandia National Laboratories	
Blair		Evans	Incite Focus	
Dale	S.	Rothman	University of Denver	
Marjan		van den Belt	Ecological Economics Res New Zealand	
Erin		Hoffer	Autodesk, Northeastern University	
Joaquim	Rochados	Santos	Universidade de São Paulo	
Merica		Sliškovic	University of Split	
Nicolas		Escalante	University of Stuttgart	
Katrin		Hügel	Univ of Applied Science St Gallen	
Jacob	J.	Jacobson	Idaho National Laboratory	
Josephine	Kaviti	Musango	Stellenbosch University	
Giuseppe		Noce		
David		Rees	Synergia Ltd	
Martin	Donald	Richardson		
Anders		Vesterberg		
Geoff		Dean	Kwantlen Polytechnic University	
Miroljub		Kljajić	University of Maribor	
Robert	Y.	Cavana	Victoria University of Wellington	

Todd		BenDor	University of North Carolina	
Md Yusoff		Taib	UMP Holdings Sdn Bhd	
Luciano		Gallón	Universidad Pontificia Bolivariana	
Kathleen		Lusk Brooke	Center for the Study of Success	
Maria		Besiou	Kuehne Logistics University	
Matthew		Fairtlough	Thornleigh Saddle LLP	
David		Keith	MIT	
Ezekiel	Adelere	Adeniran	University of Lagos	
Kimberly	M.	Thompson	Kid Risk Inc	
Casper		Wassink	Applus RTD	
Michael		Fletcher	Department of Defense	
Rick		Kossik	GoldSim Technology Group	
Katrina	M.	Proust	Nat Ctr for Epidemiology & Pop Health	
Paul	C.	Newton	The Boeing Company	
Khalid		Saeed	Worcester Polytechnic Institute	
Julia	M.	Di Stefano	Southern New Hampshire University	
Brett		Gracely	Colorado Springs Utilities	
Arnis		Lektauers	Riga Technical University	
Michael	L.	Deaton	James Madison University	
Laurent		Thévoz	CEAT	

William		Brown	US DOE/EIA	
Tom		Goodell	Integrated Knowledge Systems, Inc.	
Ulli	H.	König	RWE Deutschland AG	
Leonard	A.	Malczynski	Sandia National Laboratories	
Takuro		Uehara	Portland State University	
James		Woodcock	CEDAR, University of Cambridge	
Gönenç		Yücel	Bogaziçi University	
Emmy Farha		Alias	Universiti Putra Malaysia	
Scott		Fortmann-Roe	University of California at Berkeley	
Mark		Heffernan	Dynamic Operations P/L	
Myoung Ho		Lee	Han-Kuk University of Foreign Studies	
Barry		Newell	Australian National University	
Susan	L.	Harris	Leadership & Strategy for Sust Systems	
Justus		Gallati	Univ of Applied Science St Gallen	
Jorgen		Randers	Norwegian Business School BI	
Andrew		Ford	Washington State University	
Tom	Lum	Forest	Prometheal Systems	
XiJun		Wu	China Academy of Sci & Tech Develop	

Claire	L.	Carter	University of Sussex	
Atanu		Mukherjee	MN Dastur	
Tsuey-Ping		Lee	National Chung-Cheng University	
Louis		Macovsky	Dynamic BioSystems LLC	
Charles	T.	Uyeda	The Aerospace Corporation	
Robert	E.	Powell	Continuous Improvement Associates	
Frank		Blaskovich	Blaskovich Services	
Peter		Heffron	Best Practice Planning	
Charles	A.	Jones	University of Massachusetts Boston	
Hans	Dieter	Kasperidus	Helmholtz Centre for Environ Research	
Tim		Michael		
Dong		Mu	Beijing Jiaotong University	
Marcelo	Hugo de Medeiros	Bezerra	UFRN	
Tim		Kelly		
Nizam	Samir	Najd	Oklahoma State University	
Sean		Price	TQ Pearson	
Jeffrey	A.	Klemens	Philadelphia University	
Merla		Kubli		
Carsten		Tank-Nielsen	CTN Management Development	

Helgi	Thor	Ingason	Reykjavik University	
Richard		Miller	University of Dallas	
Wil	A.	Thissen	Delft University of Technology	
Stuart	R.	Borrett	University of North Carolina	
Newton	Paulo	Bueno	Federal University of Viçosa	
Robert	Lewis	Cohen	AT&T	
Julia		Martínez-Fernandez	Universidad de Murcia	
Marc		Radley	Langridge Court Farm	
Mike		Stewart	National Ecological Observatory Netwk	
David		Wood	ESR	
Max		Kleemann		
Lizhen		Huang	Fuzhou University/ Norwegian Univ	
Dhanan	Sarwo	Utomo	School of Business and Management Inst	
Qunzhao		Deng	Nanchang University	
Daniel	J. W.	Arthur		
Frode		Moretro		
Teten	W.	Avianto	System Dynamics House	
Kaoru		Yamaguchi	Doshisha University	
Flavio		Franco	ESTRA Energy Tech Strategies	

Elizabeth		Barnwell		
Krystyna	A.	Stave	University of Nevada Las Vegas	
Christoph	E.	Mandl	University of Vienna	
Ralph	L.	Levine	Michigan State University	
John		Trimble	Howard University	
Laura		Bonzanigo	Università Ca' Foscari Venezia	
Pål	I.	Davidson	University of Bergen	
Michael		Rehg	California State University Chico	
Leslaw		Michnowski	Sustainable Development Information So	
Erich	K. O.	Zahn	University of Stuttgart	
Mustafa		Yavas	Bogaziçi University	
Souleymane		Bah	e-integrate	
Veasna		Kum	Zaman University	
Vincent		Vettier	Credit Cooperatif	
Haryo		Tomo	Institute of Technology Bandung	
Doahoon		Kim	Sookmyung Woman's University	
Ranran		Wang	Yale University	
Colin		Elwood	Dweomer Consultants Ltd	
Corey		Lofdahl	Charles River Analytics	

Riichiro		Oda	Change Agent Inc	
Budhi		Soesilo	University of Indonesia	
Paula		Antunes	Universidade Nova de Lisboa	
Chris		Glazner	MITRE Corporation	
George		Amaro	Embrapa	
Viet Cuong		Do	State Bank of Vietnam	
James		Houghton	MIT	
Alex	K.	Macmillan	The Bartlett School of Grad Studies	
Emmanuel	D.	Adamides	University of Patras	
Osamu		Higashi	Hiroshima University	
Sara		Metcalf	University at Buffalo	
Harald		Sverdrup	Lund University	
Braulio		Quintero	SUNY ESF	
Neus		Raines	Community Policy Analysis Center	
Lin		Cai	Renmin University of China	
Robert		Jeffers	Idaho National Laboratory	
Augusto	J.	Dunham	Gama Filho University	
Burak		Güneralp	Texas A&M University	
Timothy	F.	Havel		
Carol		Olson	ECN Solar Energy	
Leonardo		Garrido	The World Bank	
Manuel	David	Rejon	Concepto Estrategico	

			Org	
John	A.	Seeger	Bentley University	
Merrill	Stephen	Kendall	Fusion IO	
Jaime		Mora	Tecnologico de Monterrey	
Gautam	N.	Yadama	Washington University in St Louis	
Philip	C.	Emmi	University of Utah	
Debjani		Ghoshex	Practical Action	
Juliette	N.	Rooney-Varga	UMass Lowell	
John		Elter	Sustainable Systems, LLC	
Ali	Kerem	Saysel	Bogaziçi University	
James		Melhuish	BAE Systems	
Jeroen		Struben	McGill University	
Grzegorz		Moorthi	Ravicon	
Yunzhu		Wang	Nanchang HongKong University	
Chris		Baker		

Your assessment of the closing year

Please elaborate concerning any particular development that may be relevant for the Society.

The coming year

Challenges

What are the opportunities the SIG plans to take, or challenges you plan to approach during the coming year?

Planned activities

Which activities (like workshops, courses or seminars) does the SIG plan to perform during the coming year?

Update web page; complete virtual issue for SD review

Support required

What would you ask the Society to do to help the SIG?

Health Policy

Annual Special Interest Group (SIG) Report

<i>SIG:</i>	Health Policy
<i>Year:</i>	2013-2014
<i>Officers</i>	Andrada Tomoaia-Cotisel (Representative)
President:	Hazhir Rahmandad (Co-Representative)
SIG-society liaison:	Wayne Wakeland (Immediate past HP SIG Representative)
Webmaster:	Angele Pieters (Assisting with the Newsletter)
<i>Website:</i>	<p>There are two websites:</p> <p>Updated the System Dynamics Society Health Policy SIG Website HP SIG website is now up and running. <i>Check it out!</i> http://sigs.systemdynamics.org/health-policy/</p> <p>Created a LinkedIn Group for the Health Policy SIG We have also created a LinkedIn group for our SIG, in hopes that it will foster collaboration, mentoring, and dialogue more generally in real time. It is private in that only members can see posts to that group. However, anyone can join the group (just as anyone can join the SIG). <i>Please join the group!</i> – follow this link and click “join” http://www.linkedin.com/groups?home=&gid=5178168&trk=anet_ug_hm</p> <p>The Discussions page facilitates general dialogue among Health Policy SIG members.</p> <p>The Promotions page facilitates inter-SDS conference meetings. Going to a relevant conference?* Post/review notes on the Promotions page and see if others are joining you. You can then organize a gathering among Health Policy SIG members during the course of that meeting.</p> <p>The Jobs page facilitates collaboration. Hoping to collaborate on a project/grant? Hoping to find an internship placement? Post/review notes on the Jobs page and connect.</p>
<i>Last update:</i>	Second newsletter for the year sent 1/7/2013. LinkedIn updated all the team, as members use it. HP SIG society website last updated at the

	beginning of this presidency.
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The past year

SIG development

Activities

Please list all activities organized by the SIG as such in the table below; insert rows as needed.

<i>Activity</i>	<i>Date</i>	<i># Attendees</i>
HP SIG Mentoring	Started this year	TBA, now collecting names of people who are interested. We will then match mentor and mentee by interest and help them meet at the ISDS conference in Delft.
Coordinated with HP SIG members to meet at other conferences as they are in attendance.	See newsletter as there are several	Exact count was not kept. Three conferences have had HP SIG members attend and meet thus far. More have been announced.
LinkedIn group discussions	Started this year	Discussions can be see on the group's page. There has been some but there could be a lot more.
HP SIG newsletter	Published 3-4 times per year; started Fall 2013, second installment just sent out	N/A but folks have sent info to be included in the newsletters; also folks have commented on appreciating the newsletters.

PS I am attaching the two newsletters that we have sent thus far as they will give you a flavor for what the HP SIG has been up to in the last 6 months and for what is up ahead.

Publications

Please list relevant publications in form of books, chapters, articles and conference proceedings; add rows as needed. "Type" should be coded as follows: A=article; B=book; C=chapter; P=proceeding; S=software.

Publication	Type
Douglas McKelvie. 'Methods Review' for the (England) National Institute for Health Research's School for Social Care Research (at London School of Economics). Modelling social care complexity: the potential of System Dynamics. http://www.sscr.nihr.ac.uk/PDF/MR14.pdf	A
Wakeland, W., A. Nielsen, T. Schmidt, J. Fitzgerald, J.D. Haddox, D. McCarty, "Modeling the Impact of Simulated Educational Interventions on the Use and Abuse of Pharmaceutical Opioids in the United States: A Report on Initial Efforts." <i>Health Education and Behavior</i> , 2013, V.40, 74S-86S.	A
Schmidt, T., A. Zimam, A. Nielsen, W. Wakeland, "Data Sources Regarding the Nonmedical Use of Pharmaceutical Opioids in the United States," <i>Reviews in Health Care</i> (in press).	A
Nielsen, A. and W. Wakeland, "Dynamic Simulation of the Effect of Tamper Resistance on Opioid Misuse Outcomes," in <i>Advances in Intelligent Systems and Computing</i> , Springer-Verlag, 2013, pp169-181.	C
Schmidt, T., J. Fitzgerald, A. Nielsen, W. Wakeland, D. Haddox, "Key Data Gaps Regarding the Public Health Issues Associated with Pharmaceutical Opioids," <i>J. Behavioral Health Services & Research</i> (in press).	A
McDonnell G, Azar AT, White JC (2013) Renal System Dynamics Modeling . In: A.T Azar (ed.), <i>Biofeedback Systems and Soft Computing Techniques of Dialysis</i> , Springer-Verlag GmbH Berlin/Heidelberg, Vol. 405, pp 1275-1320. DOI: 10.1007/978-3-642-27558-6_11.	C
Thompson, J. P., Riley, C. M., & Eberlein, R. L. (2013). Modelling for Insight: The Case of Dementia in Singapore . <i>Systems Research and Behavioral Science</i> . DOI: 10.1002/sres.2202	A
Eberlein, R. L., & Thompson, J. P. (2013). Precise modeling of aging populations . <i>System Dynamics Review</i> , 29(2), 87-101.	A
Thompson JP, Malhotra R, Love SR, Ostbye T, Chan A, Matchar DB. (in publication) Projecting the number of older Singaporeans with activity of daily living limitations requiring human assistance through 2030 . <i>Annals, Academy of Medicine, Singapore</i>	A
Hirsch G, Homer J, Trogdon J, Wile K, Orenstein D. Using simulation to compare intervention categories for reducing cardiovascular disease risks: Results for the United States and a less-advantaged county . <i>American Journal of Public Health</i> , 2014.	A
Hovmand, Peter S. 2013. Community Based System Dynamics . Springer. http://www.amazon.com/Community-Based-System-Dynamics-Hovmand/dp/1461487625/ref=sr_1_1?ie=UTF8&qid=1385474616&sr=8-1&keywords=community+based+system+dynamics	B

<p>Proceedings System Dynamics Conference 2013. The conference proceedings are now online: http://www.systemdynamics.org/conferences/2013/proceed/index.html.</p>	A
<p>Supplemental Issue: Systems Science Applications in Health Promotion and Public Health <http://heb.sagepub.com/content/40/1_suppl.toc> Guest editors: Patricia L. Mabry and Bobby Milstein, Supported by the National Institutes of Health (NIH): Office of Behavioral and Social Sciences Research (OBSSR), National Institute on Aging (NIA), National Cancer Institute (NCI), National Dental and Craniofacial Institute (NIDCR), Fogarty International Center (FIC)</p>	A
<p>Ghaffarzadegan N, Hawley J & Desai A. (2013). Research Workforce Diversity: The Case of Balancing National versus International Postdocs in US Biomedical Research. Systems Research and Behavioral Science DOI: 10.1002/sres.2190. http://onlinelibrary.wiley.com/doi/10.1002/sres.2190/pdf</p>	A
<p>Ghaffarzadegan N, Epstein AJ & Martin EG. (2013). Practice Variation, Bias, and Experiential Learning in Cesarean Delivery: A Data-Based System Dynamics Approach. Health Services Research; 48, (2) pt 2, 713-734, April 2013. http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12040/full</p>	A

Relationships with other societies or institutions

Please indicate other institutions and professional or scientific societies your SIG maintains a relationship with. Add rows as needed.

No formal relationships. However, we are attempting to strengthen our interaction when at other conferences as described above.

Institutional development

If you have made changes to your constitution or other developments the Society should know about, please mention them here.

None. That I am aware of.

Members

The stock and inflow of SIG members are important information for the Society. We would like to be able to distinguish between (new) SIG members who are members of the SD Society (Full Members) and (new) SIG members who are not members of the SD Society (Associate Members). Please provide us your best estimate of this information and any additional reflections you deem relevant.

Total number of Full Members this year	210
Total number of Associate Members this year	222 (423-210)
Number of new Associate Members this year	24 plus those marked as new on the ISDS website
Number of new Full Members this year	210 minus those who are not new on the ISDS website
Number of chapter members who were not Associate Members last year but are Full Members this year	?
Number of chapter members who were Full Members last year but are not this year	?
Number of chapter members who were Full Members last year but are not chapter members this year	?

Here is the information that I have. I have attempted to fill out the table above based on this information.

HP SIG	ISDS website yes	ISDS website no	TOTAL
LinkedIn yes	93	24	117
LinkedIn no	306	xxxxxxxxxxxxxxxxxxxx	

399 members listed on the ISDS HP SIG website. Of those 210 are marked with an * indicating that they are also Society members.

There are a total of 399+24 = 423 people somehow affiliated with the HP SIG at this point in time.

Additional considerations concerning the members’ characteristics or the dynamics of the chapters

I have gathered that members have really appreciated the newsletters and the LinkedIn group, based on their responses. Many have engaged via these media.

One important consideration that I hope the ISDS can help with was described by one HP SIG member as follows (below).

The HP SIG member attended the Latin-American Chapter conference in Mexico City and reported that they had a Health Policy meeting there. Yet, many in attendance at that health policy meeting are not members (or even affiliate members) of the HP SIG.

One aspect that people at the conference expressed as potentially causing them to hesitate in becoming members of the HP SIG is that many Latin-American Chapter members do not speak English fluently. I don't know how this has been addressed in other SIGs – your ideas would be helpful.

Also, they expressed concern that sometimes the international SIGs are perceived to function as a group for high income country-based researchers (if not US-based only), while people who are practitioners or from low income countries are not treated as equals. In attempting to verify with other attendees at the conference, the ones who agreed with this sentiment did so based on sour experiences with System Dynamics Review.

While I am not sure if this is an issue in our SIG, it may be a matter of perception regarding ISDS SIGs in general. Again, your ideas would be helpful (for our SIG as well as others).

Please list the SIG's active members in the table below. Add rows as needed.

<i>First Name</i>	<i>Middle Name</i>	<i>Last Name</i>	<i>Organization</i>	<i>Email</i>
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All members still wishing to receive HP SIG emails have been entered into the ISDS online system. The 24 LinkedIn Members who did not match individuals on the ISDS website were not entered into the website. Their names are listed below.

- Omar Abdul-Salam Alani
- John Pastor Ansah
- Luay Assidmi
- Michele Battle-Fisher
- Gene Bellinger
- Bill Braun
- Kelsey Byrd
- Ilan Chamovitz

Ashka Dave
Gonçalo Esteves
Masoud Fakhimi
Guttenberg Ferreira Passos
Tom Fiddaman
Ernest Hughes
Babak Mahdavi Ardestani
Panagiotis
Panagiotakopoulos
Bruce Pollington
wael rateb
John Rodat
Angelika Schanda
YUAN TIAN
Angelos Varelis
Khaled Wahba
Kristina Wile

Your assessment of the closing year

Please elaborate concerning any particular development that may be relevant for the Society.

Nothing else to report – see newsletters and what has been said here.

The coming year

Challenges

What are the opportunities the SIG plans to take, or challenges you plan to approach during the coming year?

The [Lupina Young Researchers Award](#) will be offered again this year. What happens next year? Is there a way to continue this award? Is there anything that we need to do to facilitate that?

See planned activities below for opportunities we hope to take advantage of.

Planned activities

Which activities (like workshops, courses or seminars) does the SIG plan to perform during the coming year?

We plan to start a mentoring program for HP SIG members. Mentor and mentee will be matched on interests. They will meet at the ISDS conference to discuss. From there, they will decide if/how they wish to continue the conversation.

We plan to keep the newsletters going.

We plan to keep the HP SIG member meetings at other conferences going (e.g., those listed in the December newsletter).

We plan to keep the LinkedIn group going.

We disseminate information on webinars relevant to the group, but we have none that we are leading at the moment.

Support required

What would you ask the Society to do to help the SIG?

- (1) Please help track member activity across time (as long as we put in their info).

I have updated the online list to include all those listed on the previous HP SIG lists, with email addresses that still work.

I cannot get a list of HP SIG member emails on LinkedIn as LinkedIn does not publish such a list, although I can see names for all those who are members of the LinkedIn group. After some matching in Excel, I have the following membership information:

HP SIG	ISDS website yes	ISDS website no	TOTAL
LinkedIN yes	93	24	117

LinkedIn no	306	XXXXXXXXXXXXXXXXXXXX	
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399 members listed on the ISDS HP SIG website. Of those 210 are marked with an * indicating that they are also Society members.

There are a total of $399+24 = 423$ people somehow affiliated with the HP SIG.

- (2) Can you do without names for those who are affiliated with the groups but not in the ISDS website? For example, I can give you a count of the people on LinkedIn with ease, but if I am to find out whom is also an ISDS member, and provide email addresses for the rest, that takes a lot of time? If you want those emails as well, then it would be great to have the Society's help in gathering them.
- (3) For the publication types above, please include a new type "white paper" or "report". For example, I would categorize the first citation as a white paper or report, not any of the categories listed.

Appendix 1. Newsletter 1

Greetings Health Policy SIG members!

We hope this email finds you well. We are writing to provide a synopsis of our meeting at this year's System Dynamics Society (SDS) conference and to outline future plans. We have had a transition in leadership, where our new structure is:

- Health Policy (HP) SIG Representative – Andrada Tomoaia-Cotisel
- Co Representative -- Hazhir Rahmandad
- Immediate past HP SIG Representative – Wayne Wakeland

At the Health Policy SIG meeting, we discussed the following goals for the coming year:

- Foster collaboration among Health Policy SIG members
- Facilitate mentoring for interested Health Policy SIG members
- Facilitate dialogue
- Foster young talent

To work toward these goals, we have:

Updated the System Dynamics Society Health Policy SIG Website

HP SIG website is now up and running.

Check it out! <http://sigs.systemdynamics.org/health-policy/>

Created a LinkedIn Group for the Health Policy SIG

We have also created a LinkedIn group for our SIG, in hopes that it will foster collaboration, mentoring, and dialogue more generally in real time. It is private in that only members can see posts to that group. However, anyone can join the group (just as anyone can join the SIG).

Please join the group! – follow this link and click “join”

http://www.linkedin.com/groups?home=&gid=5178168&trk=anet_ug_hm

The **Discussions** page facilitates general dialogue among Health Policy SIG members.

The **Promotions** page facilitates inter-SDS conference meetings.

Going to a relevant conference? * Post/review notes on the Promotions page and see if others are joining you. You can then organize a gathering among Health Policy SIG members during the course of that meeting.

The **Jobs** page facilitates collaboration.

Hoping to collaborate on a project/grant? Hoping to find an internship placement? Post/review notes on the Jobs page and connect.

*On this note, the American Public Health Association conference will be held November 2-6, 2013. It has already been posted to the LinkedIn group “promotions page”. If you are attending the conference, please click “like” or

“comment” and those going can have the opportunity to get together during the conference.

Started Coordinating the Mentoring Program

This year, we are creating a mentoring program for the Health Policy SIG, where interested SIG members can be matched (mentor to mentee) based upon interest. They will then have the opportunity to meet during the 2014 System Dynamics Society conference in Delft, Netherlands.

Interested in participating in the mentoring program? ***Then, go to the LinkedIn Group Discussions page and click “like” for the mentoring post.***
http://www.linkedin.com/groups?home=&gid=5178168&trk=anet_ug_hm

Started Sending Quarterly Health Policy SIG Newsletter

In parallel with the real-time LinkedIn Group dialogue, we will be sending out a quarterly newsletter to all Health Policy SIG members. This newsletter will aim to report on and capture the main “happenings” of the group during each quarter as well as upcoming opportunities and events as submitted by members. The next one will be sent in November, then February, then May).

If you have updates that you would like to share with the group in this manner (instead of or in addition to via LinkedIn), please email them to health@sigs.systemdynamics.org

A final note, at the Health Policy SIG meeting, we also discussed the **Lupina Young Researchers Award**. It was not awarded at the 2013 conference. However, the Health Policy SIG hopes to award it next year.

For award nomination details please go to <http://conference.systemdynamics.org/lyr/>

That’s it for now!

See you in the Health Policy SIG LinkedIn group discussions, at a SIG gathering attached to a health conference, in the quarterly newsletter, or at next year’s conference in Delft! ... the opportunities are many. We look forward to engaging with you!

All the best,

Andrada, Hazhir and Wayne

PS If you would prefer not to receive further emails from the Health Policy SIG of the System Dynamics Society, please do the following:

- 1) Reply to this email indicating that you wish not to receive future emails from this group
- 2) Update your profile on the System Dynamic Society website (unclick the box for the Health Policy SIG)

Health Policy Special Interest Group – Newsletter – December 2013

Hello HP SIG members,

This is the second installment of our HP SIG newsletters. In an effort to further engage with each other, we wrote asking HP SIG members to provide updates. Below, we share with you these updates. The first section reviews the last little while. The second section presents upcoming activities.

Previous Activities

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We also encourage you to participate throughout the year via the HP SIG LinkedIn group.

Please join the group! – follow this link and click “join”

http://www.linkedin.com/groups?home=&gid=5178168&trk=anet_ug_hm

The **Discussions** page facilitates general dialogue among Health Policy SIG members.

The **Promotions** page facilitates inter-SDS conference meetings.

Going to a relevant conference?* Post/review notes on the Promotions page and see if others are joining you. You can then organize a gathering among Health Policy SIG members during the course of that meeting.

The **Jobs** page facilitates collaboration.

Hoping to collaborate on a project/grant? Hoping to find an internship placement? Post/review notes on the Jobs page and connect.

All the best,

Andrada and Angel and the HP SIG leadership team

A. PAST CONFERENCES – THAT MEMBERS ATTENDED

Urban Dynamics and Health Conference; Paris, France; September 2013

Proust, HP SIG member, convened a plenary session, presenting the current state of the ICSU Urban Health Program in the Asia-Pacific region. The session comprised four interconnected presentations:

The ICSU ROAP Urban Health and Wellbeing Program – Nordin Hasan, Director of the ICSU Regional Office for Asia and the Pacific

Collaborative Conceptual Modelling: Unravelling Dynamic Complexity – Barry Newell

Urban Health Dynamics: The Challenge of Designing a Systems Program – Katrina Proust

Green Transportation for Better Urban Health: a Systems Approach – Candice Lung, Research Center for Environmental Changes, Academia Sinica, Taipei, Taiwan

American Public Health Association – Annual Conference; Boston, USA; November 2-6, 2013

No formal meeting was held, but HP SIG members did meet at the conference.

ONCE CLADS – Regional Conference of the Latin America Chapter of the System Dynamics Society - Health Policy Group Meeting; Mexico City, Mexico; November 5-7, 2013

We met to discuss common interests and projects. We found that we are very interested in modeling the community health and prevention aspects of the health system. In particular, we are interested in pursuing work on early-warning systems.

MIT Innovations in Health Care Conference; Boston, USA; December 3-4, 2013

Healthcare delivery systems will have to shift their focus from merely providing care to ill patients, to proactively managing the health of populations and communities. The conference facilitated a series of discussions about state-of-the-art processes, organizational transitions, analytics, and technology innovation within the health industry and academia, regarding transformational care delivery and health management models. Conference details, speakers, some slides, and soon the video is available at

<http://ilp.mit.edu/conference.jsp?confid=86&tabname=overview>

B. AWARDS WON BY HP SIG MEMBERS

Winning Poster: Modeling the future – System dynamics in the health care of cutaneous malignant melanoma Paul Holmström Chairman at Bioss Sweden AB.

Poster which won first prize at the 2nd International Conference on UV and Skin Cancer Prevention held on 10 to 13 September 2013 in Berlin. Authors: Magdalena Claesson (1), Stefan Hallberg(2), Paul Holmström(2), Ann-Marie Wennberg(1), Helena Gonzalez(1), John Paoli(1) (1) Department of Dermatology and Venereology, Sahlgrenska Academy, Gothenburg, Sweden; (2) Centre for Health Care Improvement, Chalmers University of Technology, Gothenburg, Sweden.

C. MEMBER UPDATES

Jim Duggan

We've just launched a public health initiative in Ireland – it's part of a wider European project. The idea is to engage the public to help map the spread of seasonal influenza. The system can provide an early warning as to ILI activity (and so help mitigate the unavoidable reporting time-delays through the sentinel system).

From a modeling perspective, this project will allow for the gathering of disaggregate cohort data which can support modeling of infection, and it can also be used to estimate vaccine efficacy.

See <https://flusurvey.ie/> for further information.

Peter Lacey

WSP are continuing to develop its workforce modeling collaborative across the regional commissioning bodies in England. 9 of the 13 regions are now working together to model future training requirements for medical and nursing professionals. Peter Lacey, Director of WSP, has also been asked to speak on this subject at a symposium at the Duke-NUS Graduate Medical School in Singapore in April.

Katrina Proust and Barry Newell

In 2007, the Urban Health Program of the International Council for Science identified health and wellbeing in the changing urban environment as a priority area, emphasising the need to examine this issue from a systems perspective in order to understand the cross-sector feedback effects that tend to undermine policy. In 2010 the ICSU Regional Office for Asia and the Pacific (ROAP) adopted Collaborative Conceptual Modelling (CCM) as the framework to guide implementation of system dynamics approaches within the pilot projects.

Developed by Barry Newell and Katrina Proust, CCM balances guidance with flexibility of application. It provides a practical way for a group to take a system dynamics approach to the study of complex human-environment problems. During 2013, Proust and Newell ran introductory workshops with potential teams in the Asia-Pacific region. These workshops were designed to help team members develop their systems thinking ability. Proust continues to work with the teams as they design their projects with the help of CCM.

In November 2013, Proust delivered a pre-recorded presentation at the conference *Challenges of Extended Mega Urban Regions* in Kuala Lumpur. Her talk was entitled "Urban Health Dynamics: The Challenge of Taking a Systems Approach". She outlined the challenges of designing system dynamics projects focused on population health in the context of rapid urbanisation.

An emerging focus of Proust and Newell's research is the impact of technology choice on the interconnected health of ecosystems and urban communities. In a world where technology is seen as an all-powerful change-agent, there is a strong tendency to pay attention to the immediate, beneficial outcomes of innovation, and a matching tendency to overlook delayed,

damaging outcomes. A system dynamics perspective, focused on cross-sector feedback, can help to establish a more balanced approach. **Please see Appendix for more details on their work with the *Technology Choice and Urban Health* program.**

Jim Thompson

I had been at Duke-NUS Graduate Medical School (Singapore) for a few years, starting a Health Systems Design Laboratory, and left in November 2012. The focus of our work was the care and treatment of persons with age-associated dementia. We also participated in country-level capacity planning for the Ministry of Health, control of infectious diseases and palliative care research. Our work was (remains) funded by the National Medical Research Council (Singapore).

In 2013, I was engaged by the administration in Indonesia to help determine the gap between demand for medical services and health system capacities. The Vice President's National Team for Accelerating Poverty Reduction (Tim Nasional Percepatan Penanggulangan Kemiskinan or TNP2K) is in charge of planning for universal healthcare which is being implemented through 2019. We used a mixed methodology comprising spreadsheets for baseline utilization, demand and capacity and a system dynamics model to simulate the transition from current policy to universal coverage. I don't know if we'll do a paper on this project, but we'll see.

Right now, I'm working with a team from Harvard Medical School to study a pharmaceutical firm's medicine access initiative in Kenya. The pharma approach is under the banner of socially responsible business, and we are helping to develop measures of the initiative's impact on the communities served--population health status, economic activities and the like.

D. WEBINARS BY HP SIG MEMBERS

Watch Back Webinar: ReThinkHealth: Simulation Models Supporting Local Solutions

- Video: [ReThink Health presentation](#)
- Slides: [ReThink Health slides](#)
- ReThink Health: rippelfoundation.org/rethink-health/
- ReThink Health models: [Local ReThink Health models](#)

Watch Back Webinar: "Models that Matter: System Dynamics Applications with Impact

An introductory workshop to system dynamics and a plenary presentation on "Models that Matter: System Dynamics Applications with Impact" both by George Richardson can be found at <http://www.i2sconference.org/>. Click on the purple "on-demand video" button. You need to enter your name and e-mail address in order to view the videos, but there is no costs involved.

E. RECENT PUBLICATIONS BY HP SIG MEMBERS

McDonnell G, Azar AT, White JC (2013) **Renal System Dynamics Modeling**. In: A.T Azar (ed.), *Biofeedback Systems and Soft Computing Techniques of Dialysis*, Springer-Verlag GmbH Berlin/Heidelberg, Vol. 405, pp 1275-1320. DOI: 10.1007/978-3-642-27558-6_11.

Thompson, J. P., Riley, C. M., & Eberlein, R. L. (2013). **Modelling for Insight: The Case of Dementia in Singapore**. *Systems Research and Behavioral Science*. DOI: 10.1002/sres.2202

Eberlein, R. L., & Thompson, J. P. (2013). **Precise modeling of aging populations**. *System Dynamics Review*, 29(2), 87-101.

Thompson JP, Malhotra R, Love SR, Ostbye T, Chan A, Matchar DB. (in publication) **Projecting the number of older Singaporeans with activity of daily living limitations requiring human assistance through 2030**. *Annals, Academy of Medicine, Singapore*

Hirsch G, Homer J, Trogdon J, Wile K, Orenstein D. **Using simulation to compare intervention categories for reducing cardiovascular disease risks: Results for the United States and a less-advantaged county**. *American Journal of Public Health*, 2014.

Hovmand, Peter S. 2013. **Community Based System Dynamics**. Springer.

http://www.amazon.com/Community-Based-System-Dynamics-Hovmand/dp/1461487625/ref=sr_1_1?ie=UTF8&qid=1385474616&sr=8-1&keywords=community+based+system+dynamics

Proceedings System Dynamics Conference 2013. The conference proceedings are now online: <http://www.systemdynamics.org/conferences/2013/proceed/index.html>.

Supplemental Issue: Systems Science Applications in Health Promotion and Public Health <http://heb.sagepub.com/content/40/1_suppl.toc> Guest editors: Patricia L. Mabry and Bobby Milstein, Supported by the National Institutes of Health (NIH): Office of Behavioral and Social Sciences Research (OBSSR), National Institute on Aging (NIA), National Cancer Institute (NCI), National Dental and Craniofacial Institute (NIDCR), Fogarty International Center (FIC)

Ghaffarzadegan N, Hawley J & Desai A. (2013). **Research Workforce Diversity: The Case of Balancing National versus International Postdocs in US Biomedical Research**. *Systems Research and Behavioral Science* DOI: 10.1002/sres.2190. <http://onlinelibrary.wiley.com/doi/10.1002/sres.2190/pdf>

Ghaffarzadegan N, Epstein AJ & Martin EG. (2013). **Practice Variation, Bias, and Experiential Learning in Cesarean Delivery: A Data-Based System Dynamics Approach**. *Health Services Research*; 48, (2) pt 2, 713-734, April 2013. <http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12040/full>

A. UPCOMING CONFERENCES - MEMBERS ARE PLANNING TO ATTEND

Below is a list of upcoming conferences that HP SIG members have indicated they are planning to attend. They will also be posted on the LinkedIn page as they draw nearer.

Our goal is to continue our health-related conversations begun at the national ISDS meeting as we attend other conferences through the year. So, if you are attending one of these (or another conference) and would like to meet other HP SIG members there, please make it known on the promotions page of the LinkedIn group (to facilitate planning an HP SIG gathering there). Then, provide us with an update and it will be included in the next newsletter.

Jan 24-25 *Washington, DC, USA* **NIH Complexity Science**

<http://conferences.thehillgroup.com/UMich/complexity-disparities-populationhealth/>

April 3-4 *London, UK*

UK SIG Chapter Conference

Theme: Operational Risk and Analytics

<http://systemdynamics.org.uk/news-and-events/>

April 15-17 *Geneva, CH*

Geneva Health Forum

<http://ghf.globalhealthforum.net/>

June 8-10 *San Diego, CA*

Academy Health – Annual Research Meeting

<http://www.academyhealth.org/events/content.cfm?ItemNumber=882&navItemNumber=529>

June 10-11 **Public Health Services Research IG Meeting**

<http://www.academyhealth.org/Events/events.cfm?ItemNumber=12430&navItemNumber=2035>

July 20-25 *Delft, Netherlands*

ISDS Annual Conference

<http://conference.systemdynamics.org/> (see more below)

B. UPCOMING SYSTEM DYNAMICS CONFERENCE

2014 System Dynamics Conference (Delft, The Netherlands)

The 2014 System Dynamics Conference will be held in Delft, the Netherlands from July 20-24, 2014. Please visit the conference website at: <http://conference.systemdynamics.org/>.

Important dates:

- February 3, 2014 Opening date for paper submissions and workshop and session proposals

- March 18, 2014 Deadline for paper submissions and workshop and session proposals
- May 7, 2014 Notification of acceptance
- May 14, 2014 Final abstracts due for printed Abstract Proceedings
- May 29, 2014 Presenter registration deadline—papers of unregistered designated presenters will be removed from the program
- June 6, 2014 Tentative program schedule available
- June 10, 2014 Reserved hotel room availability reduced
- June 23, 2014 Conference registration fee increase
- July 20, 2014 PhD Colloquium Policy Council Meeting
- July 21, 2014 Delft Conference Opening!
- August 15, 2014 Deadline for final papers for Web Proceedings

Conference Paper Awards

The [Lupina Young Researchers Award](#) is given to outstanding papers dealing with health-related topics, authored by students or recent (past 5 years) graduates and presented at the conference. **(This is one given out by our HP SIG.)** The award is sponsored by the Lupina Foundation of Toronto, Canada, and will be accompanied by a check in the amount of CAN\$5000.

The [Dana Meadows Award](#) is given to outstanding papers authored by students that are presented at the conference. The award symbolizes the Society's commitment to students in two ways. It brings recognition to the very best student work. It also honors, in an enduring way, the life and work of Dana Meadows. The prize celebrates and recognizes high quality student work in the field of system dynamics. The award winner will receive a prize in value up to US\$1500.

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 [Frank Fisher Award](#) will be presented in 2014 for the best system dynamics submission on any work about taxation policies of land value taxation (LVT) or land value capture (LVC). The basis for these taxation policies (LVT or LVC) is often associated with Henry George, a 19th century political economist.

For System Dynamics Awards Beyond the Conference, please see

<http://www.systemdynamics.org/awards/>

C. HIP SIG MENTORING PROGRAM

This year, we are creating a mentoring program for the Health Policy SIG, where interested SIG members can be matched (mentor to mentee) based upon interest. They will then have the opportunity to meet during the 2014 System Dynamics Society conference in Delft, Netherlands.

Interested in participating in the mentoring program? ***Then, go to the LinkedIn Group Discussions page and click "like" for the mentoring post.***

http://www.linkedin.com/groups?home=&gid=5178168&trk=anet_ug_hm

In the next few months, we will contact those who have shown interest to gather some information and match mentors to mentees.

D. JOB OPPORTUNITIES

None shared at this time. Remember that you can also post/look for them at any time on the “promotions” page of the HP SIG LinkedIn group.

E. GRANT OPPORTUNITIES

Systems Science and Health in the Behavioral and Social Sciences R21 (NIH).

<http://grants.nih.gov/grants/guide/pa-files/PA-11-315.html>

<http://grants.nih.gov/grants/guide/pa-files/PA-11-316.html>

This opportunity is only open until September 2014, so there are only two more NIH submission dates (Feb and Jun 2014) that can be used for sending proposals and this is one of the best opportunities to apply for NIH funding based on research that uses system dynamics modeling; so highly relevant for people with a more substantive project that needs serious funding.

Advances in Patient Safety through Simulation Research (R18)

The Agency for Healthcare Research and Quality (AHRQ) is interested in funding a diverse set of projects that develop, test and evaluate various simulation approaches for the purpose of improving the safe delivery of health care. Simulation in health care serves multiple purposes. As a training technique, it exposes individuals and teams to realistic clinical challenges through the use of mannequins, task trainers, virtual reality, standardized patients or other forms, and allows participants to experience in real-time the consequences of their decisions and actions. The principal advantage of simulation is that it provides a safe environment for health care practitioners to acquire valuable experience without putting patients at risk. Simulation also can be used as a test-bed to improve clinical processes and to identify failure modes or other areas of concern in new procedures and technologies that might otherwise be unanticipated and serve as threats to patient safety. Yet another application of simulation focuses on the establishment of valid and reliable measures of clinical performance competency and their potential use for credentialing and certification purposes. Applications that address a variety of simulation techniques, clinical settings, provider groups, priority populations, patient conditions, and threats to safety are welcomed. For the full Funding Opportunity Announcement, please visit: <http://grants.nih.gov/grants/guide/pa-files/PA-14-004.html>

Modeling the Scientific Workforce (U01)

The National Institutes of Health (NIH) has just issued RFA-GM-14-011, Participating components of NIH include the National Institute of General Medical Sciences (NIGMS) and the

Office of Behavioral and Social Sciences Research (OBSSR). NIGMS and OBSSR are committed to employing data-driven, scientifically rigorous tools to develop a stable scientific workforce and recognize that there is a need to look beyond individual programs in isolation and pursue a systems-based approach to the study of scientific workforce dynamics. Advances in computational methods and system sciences suggest that it is possible to build models of the scientific workforce that will inform our understanding of workforce dynamics, support development and management of interventions and training programs, and guide the collection and analysis of data necessary for program design and management. The NIGMS and OBSSR understand that computational models are one tool among many used to guide policy and process. The OBSSR is specifically interested in supporting work to model the behavioral and social science workforce.

Note that this is a Cooperative Agreement: A support mechanism used when there will be substantial Federal scientific or programmatic involvement. Substantial involvement means that, after award, NIH scientific or program staff will assist, guide, coordinate, or participate in project activities.

Interested applicants are strongly encouraged to contact one of the Scientific/Research Contacts listed in the announcement as soon as they decide they want to apply.

Read the full announcement at: <http://grants.nih.gov/grants/guide/rfa-files/RFA-GM-14-011.html>

Appendix

Appendix A – Full Report from Katrina Proust and Barry Newell

The Australian National University, Canberra

Urban Health Program of the International Council for Science (ICSU)

In 2007 ICSU identified health and wellbeing in the changing urban environment as a priority area. Operationally, there is an urgent need to transition from current unsustainable patterns of urban development to healthy and less carbon-intensive approaches. ICSU has emphasized the need to examine this issue from a systems perspective in order to understand the cross-sector feedback effects that tend to undermine policy. In 2010 the ICSU Regional Office for Asia and the Pacific (ROAP) set up its own Planning Group, which produced a *Science Plan on Health and Wellbeing in the Changing Urban Environment: a Systems Approach* (ICSU ROAP 2011). In 2012 ICSU ROAP held meetings of regional experts to help to identify pilot projects to be carried out under the Urban Health Program. At the same time, ROAP adopted *Collaborative Conceptual Modelling* (CCM) as the framework to guide implementation of system dynamics approaches within the pilot projects.

Developed by Barry Newell and Katrina Proust, at The Australian National University, CCM has grown out of theoretical studies and practical collaborative work with a wide range of community, student, academic, and professional groups. It blends insights and tools that have been developed, by many research groups, over decades of investigation into the nature and behaviour of complex adaptive systems, and the nature of human understanding and decision-

making. Overall, CCM balances guidance with flexibility of application. It provides a practical way for a group to take a system dynamics approach to the study of complex human-environment problems. For a brief introduction, see Newell and Proust (2012).

Proust is a member of the ICSU ROAP Steering Committee for Research on Urban Health. During 2013, Proust and Newell ran introductory workshops with potential teams in the Asia-Pacific region. These workshops were designed to help team members develop their systems thinking ability. Proust continues to work with the teams as they design their projects with the help of CCM.

In September 2013, Proust and Newell attended the *Urban Dynamics and Health Conference*, at the University of Paris West, Nanterre, France. Proust convened a plenary session, presenting the current state of the ICSU Urban Health Program in the Asia-Pacific region. The session comprised four interconnected presentations:

The ICSU ROAP Urban Health and Wellbeing Program – Nordin Hasan, Director of the ICSU Regional Office for Asia and the Pacific

Collaborative Conceptual Modelling: Unravelling Dynamic Complexity – Barry Newell

Urban Health Dynamics: The Challenge of Designing a Systems Program – Katrina Proust

Green Transportation for Better Urban Health: a Systems Approach – Candice Lung, Research Center for Environmental Changes, Academia Sinica, Taipei, Taiwan

In November 2013, Proust delivered a pre-recorded presentation at the conference *Challenges of Extended Mega Urban Regions* in Kuala Lumpur. Her talk was entitled “Urban Health Dynamics: The Challenge of Taking a Systems Approach”. She outlined the challenges of designing system dynamics projects focused on population health in the context of rapid urbanisation.

Technology Choice and Urban Health

An emerging focus of Proust and Newell’s research is the impact of technology choice on the interconnected health of ecosystems and urban communities. In a world where technology is seen as an all-powerful change-agent, there is a strong tendency to pay attention to the immediate, beneficial outcomes of innovation, and a matching tendency to overlook delayed, damaging outcomes. A system dynamics perspective, focused on cross-sector feedback, can help to establish a more balanced approach.

The *Technology Choice and Urban Health* program involves selecting pairs of technologies that offer alternative approaches to the same challenge. One member of the pair needs to be a technology that is an ‘unhealthy’ choice, from the point of view of both the environment and urban populations, while the other member needs to be a ‘healthier’ choice—one that is more sustainable.

Consider, for example, refrigerated air-conditioning (RAC) versus passive indoor-climate control (PICC). RAC has many benefits. But, among other things, its widespread use reduces the ability of human populations to acclimatise to temperature extremes. At the same time, RAC places heavy, peaked loads on electricity-supply systems during heatwaves. These peak loads can, and do, cause power failures, exposing poorly acclimatised people to temperature extremes. The widespread use of RAC thus significantly increases the risk of thermal stress in the population. PICC technology does not have these impacts. It is effective and widely available but, in a classic *Success to the Successful* scenario, RAC is displacing PICC across the

world. The accelerating adoption of RAC in Asian cities is of concern, especially in the face of climate change.

A number of classic cases involve the displacement of traditional technologies by more modern technologies. In many of these cases the traditional technology works well enough and is sustainable, while the newer technology is more effective but is unsustainable because of its impact on people and the planet. A number of examples are related to the 'Green Revolution' where the use of pesticides and other agricultural chemicals caused unwanted health impacts.

The aim of the *Technology Choice and Urban Health* program is to isolate policy leverage points for effective system change. The work will involve (a) isolating credible technology pairs, (b) studying the dynamics of technology diffusion in the human-environment system in which the technologies are embedded, and (c) identifying policy leverage-points that have the potential to drive the adoption of the more sustainable technology. Proust and Newell welcome potential collaborators in this new endeavour. An initial example of the approach is given in Proust, et al (2012).

References

ICSU ROAP, 2011. *Science Plan on Health and Wellbeing in the Changing Urban Environment – A Systems Approach*

<http://www.icsu.org/asia-pacific/publications/science-planning-reports/science-plan-on-health-and-wellbeing-in-the-changing-urban-environment-1/>

Newell, B. and Proust, K. 2012, *Introduction to Collaborative Conceptual Modelling*

<https://digitalcollections.anu.edu.au/handle/1885/9376>

Proust, K., Newell, B., Brown, H., Capon, A., Browne, C., Burton, A., Dixon, J., Mu, L., Zarafu, M. 2012. Human Health and Climate Change: Leverage Points for Adaptation in Urban Environments. *International Journal of Environmental Research and Public Health*, 9, 2134-2158 <http://www.mdpi.com/1660-4601/9/6/2134>

Information Science and Information Systems

Annual Special Interest Group (SIG) Report

<i>SIG:</i>	Information Science and Information Systems (iSIG)
<i>Year:</i>	2013
<i>Officers</i>	Stefano Armenia, Eliot Rich
President:	To Be Appointed
SIG-society liaison:	To Be Appointed
Webmaster:	To Be Appointed
<i>Website:</i>	Web page on: http://sigs.systemdynamics.org
<i>Last update:</i>	30.12.2013

The past year

SIG development

Activities

Please list all activities organized by the SIG as such in the table below; insert rows as needed.

<i>Activity</i>	<i>Date</i>	<i># Attendees</i>
-	-	-

The new Officers of the iSIG have been appointed some time after the ISDC2013 in Boston, in order to guarantee a new start of the iSIG, who had been a little down during the last years, so that the society was fearing that they would have to close it if they had not found anyone with the goodwill to revive it a bit. Stefano Armenia (SA) and Eliot Rich (ER) agreed to embark into this quest and so they were officially appointed as officers of the iSIG during the month of October 2013.

Publications

Please list relevant publications in form of books, chapters, articles and conference proceedings; add rows as needed. "Type" should be coded as follows: A=article; B=book; C=chapter;P=proceeding;S=software.

<i>Publication</i>	<i>Type</i>
-	-

Relationships with other societies or institutions

Please indicate other institutions and professional or scientific societies your SIG maintains a relationship with. Add rows as needed.

N.A. at the moment

Institutional development

If you have made changes to your constitution or other developments the Society should know about, please mention them here.

As their first tasks, SA and ER started reviewing the status of the iSIG, by analyzing the following aspects:

- current members list
- current communication channels
- current SIG-joining process

The following were then the actions put in place in order to kick-start again the iSIG activities:

- define and implement new content for the SIG institutional website
- define and implement new associated communication channels (Mailing List, LinkedIN Group)

At the start of 2014 the SIG will be working on the following tasks:

- invitation of previous members to the Mailing List and LinkedIN Group
- define new joining procedures
- identification, through a literature search, of a list of topics of interest for discussion among the iSIG members.

- identification of other possible items for discussion in the group (attracting practitioners and academics from the IT field, interacting with other professional/scientific IT societies, identifying core knowledge for university/professional users, etc.)
- Preparing for iSIG meeting at next ISDC conference

Members

The stock and inflow of SIG members are important information for the Society. We would like to be able to distinguish between (new) SIG members who are members of the SD Society (Full Members) and (new) SIG members who are not members of the SD Society (Associate Members). Please provide us you best estimate of this information and any additional reflections you deem relevant.

Total number of Full Members this year	132
Total number of Associate Members this year	147
Number of new Associate Members this year	n.a.
Number of new Full Members this year	n.a.
Number of chapter members who were not Associate Members last year but are Full Members this year	n.a.
Number of chapter members who were Full Members last year but are not this year	n.a.
Number of chapter members who were Full Members last year but are not chapter members this year	n.a.

Additional considerations concerning the members’ characteristics or the dynamics of the chapters

As reported above, this is a new kick-start for the iSIG. We do not have sufficient information at the moment to assess the dynamics of membership in the SIG nor the members’ characteristics, but we do plan to collaborate with the society in order to identify the best possible tools in order to facilitate this analysis also for other chapters/SIGs. For sure, this kind of information will be available by the next reporting period.

Please list the SIG’s active members in the table below. Add rows as needed.

<i>First Name</i>	<i>Middle Name</i>	<i>Last Name</i>	<i>Organization</i>	<i>Email</i>

Your assessment of the closing year

Please elaborate concerning any particular development that may be relevant for the Society.

It is currently difficult to make a thorough assessment of the closing year, as the current officers just had slightly more than 3 months to restart the iSIG activities and getting organized again in order to manage them and the SIG itself. However, it seems a good opportunity to maintain the iSIG open as, just to make an example, a lot is going on in the field of integrating ICT and Modeling & Simulation techniques. A better assessment will be of course possible at the end of 2014, when the iSIG will likely have undergone a whole year of group activities.

The coming year

Challenges

What are the opportunities the SIG plans to take, or challenges you plan to approach during the coming year?

As said above, other possible items for discussion in the group are constituted by the following topics:

- if and how to attract practitioners and academics from the IT field,
- how to interact with other professional/scientific IT societies,
- identify core knowledge for university/professional users

Planned activities

Which activities (like workshops, courses or seminars) does the SIG plan to perform during the coming year?

As said, as this is a new kick-start of the iSIG activities, a plan for future activities will be devised as soon as the community will start interacting again in a relevant way and as soon as all members will start, in a cooperative way, defining what might be of interest for the members themselves.

Support required

What would you ask the Society to do to help the SIG?

Help the officers of SIGs and Chapters to provide the Society with the requested information in a more automated way.

ANNEX 1: List of SIG Members (* denotes SDS Full Membership)

The list in the table below has been extracted from the new tool available on the society website private part. The information on membership thus is what actually available from the society's database (the list also includes those signed up for next year as well).

Current Figures:

- Total: 279
- Society Members: 132
- Associate Members: 147

SURNAME	MIDDLE NAME	NAME	EMAIL	ORGANIZATION	SDS Membership (*)
Wang		Qifan			*
Williams		Ddembe			*
Andersen		Jennifer			*
Austin		Samuel			
Biery		Richard			
Kennedy		Anthony			*
Kobayakawa		Satoru			
Koziol		Roman			*
Gray		Raye			
Hardjosoekarto		Sudarsono			
John		Richard			
Keating		Elizabeth			
La Roche		Lucas			*
Lynd		Donald			
Malczynski		Leonard			*
McLucas		Alan			*
Pemmer		Janecke			
Quinn		Patricia			
Rahn		R. Joel			*
Rich		Eliot			*
Richard		Christopher			*
Rissmiller		Kent			
Tignor		Warren			*
Trimble		John			*
Pillai		K. Sarachandran			
Otto		Peter			*

Ring		Jack			
Newton		Paul			*
Robadue		Donald			*
Pavlov		Oleg			*
Medeiros		Hazencleve			*
Donado-Campos		Juan			*
Loucopoulos		Pericles			
Hines		Chip			
LeSeure		Danny			
Scott		Denisa			*
Ericsson		Anders			*
DeMeulle		Brian			
Chung		Ik Jae			*
Clark		Gregory			
Cloutier		Martin			*
Cohen		Robert			*
Cottrell		Daniel			
Diker		Vedat			*
Emanuel		Mike			
Frances		Carol			*
Georgantzas		Nicholas			*
Barreto		Allan			
Botha		Andries			*
Hell		Marko			*
Bradl		Peter			
Ramos		Boris			*
Frazier		Don			*
Kunath		Oliver			
Beveridge		Colin			
Cumenal		Didier			*
Chichakly		Karim			*
Ozolins		Gints			
Fryling		Meg			*
Siegel		Michael			*
Kelic		Andjelka			*
Choucri		Nazli			*
Pasupathy		Kalyan			
Rose		David			
Naeem		Muhammad			
Kapson		John			*
Washburn		Connie			

Ford		Michael			*
Murdock		Frank			*
Galindo		Jorge			
Chatfield		Benjamin			
Bosacker		Stephen			*
Crowe		Brian			*
Brits		James			
Maimaris		Athanasios			*
Perdana		Tomy			
Williams		Gregory			
Noce		Giuseppe			*
Kendall		Merrill			*
Daly		Herbert			
Novak		Margaret			*
Landschof		Thomas			
Franklin		John			*
Gunturu		Ravi			
Jones		Mary			*
Olafsdottir		Anna			*
Shevtsov		Sergey			
Comer		Stephen			
Voll		Alexander			
Whitmore		Andrew			
Mora Tavarez		José Manuel			
Jung		Jae Un			
Koul		Saroj			*
Spearow		William			
Bajpai		Sushil			
Balaporla		Zahir			*
Padros		Jose			
Tebaldi		Claudio			
Rabelo		Luis			
Helal		Magdy			
Moretro		Frode			*
Soley		Jaime			
Lee		Sang Hyun			
Nnoli		Okechukwu			
Lee		Shoou-Yih			
Linneusson		Gary			*
Samuelson		Doug			
Inthawongse		Choat			*

Goughenour		James			
Jolly		Richard			
Powers		Robert			*
Kim		Ben			*
Hvitfeldt		Helena			
Schulz		Franz-Josef			
Andretta		Massimo			
Barron		Antonio			*
Morlan Santa Catalina		Ignacio			
Kellner		Norbert			
Valeriano		Santivañez			
Velasquez		Gerald			
Demirezen		Emre			
Adeniran		Ezekiel			*
Oliva		Antoni			
Larson		Dana			
Killingsworth		William			
Michaloudis		Charalampos			
Sharma		Anurag			
Dierks		Meghan			
Lopez		Sandra			
Yurtseven		Murat			
Walker		Terrence			
Kazanci		Kutlu			
Do		Viet Cuong			*
Andraus		Ramez			*
McClennen		William			
Dahan		Mariana			*
Balnac		Kailash			
Dai		Xin			*
Baitello		Jose			
Hasanen		Rolf			*
Biromo		Prima			*
Alhuraibi		Adel			
Kim		Julieh			
Balaraman		Reghunath			
Mauro		Louis			
Shrivastava		Prakash			
Bakhoda		Hossein			
Ilter		Halil			*
Baker		Chris			*

Rao		Anand			*
Pietrobon		Ricardo			
Bergman		Robert			*
Cherbonneau		Gregg			
Singhal		Mayank			
Boettcher		Kevin			
Zhang		Qian			
Yawson		Robert			
Dodd		Jason			
Baxter		Gary			*
Andersson		Elisabeth			
Morgan		John			
Kleine		Oliver			*
McGoey		Paul			*
Ardawatia		Himanshu			
Tibazarwa		Augustine			
Calimer		Colleen			
Kautz		Frederick			*
Hsu		Alina			
Metcalf		Jordan			
Van Bemmelen		Henri			*
Sledzinski		Wojciech			*
Boni		Michael			
Ormonde		Les			*
Gould		David			
Sleijpen		Hans			*
Brase		Laurel			
Strickland		Matthew			*
Akpinar		Haldun			*
de Carvalho		Elias Cesar			
Sihombing		Lukas			*
Hubbard		Richard			*
R.		Mukundan			
Lutz		Michel			
Hashmi		Sahar			
Spahic		Sanja			
Behbehani		Amir			
Vasquez		Alberto M.			
Bird-Canals		Alfredo			*
Yeves		Vicente			
Stoica		Rosana			*

Agrawalla		Raman Kumar			
O'Sullivan		Brendan			*
Thakker		Rikin			*
Simonelli		James			*
Datta		Ruchira			
McDonald		John			*
Eppe		Stefan			*
Grimmer		Ben			
Song		Taiboo			
Medeiros		Josué			*
Uyeda		Charles			*
Elkady		Ghada			*
Ganeswaran		Bharathiselvan			*
Teixeira da Costa		Deivson Rayner			
Young		Bill			
Rodiqi		Ilir			*
Ran		Weijia			*
Goyal		Nihit			
Keijser		Rutger			
Ahmed		Hassan			*
Arnaud		Victor			
Wasilewski		Yvonne			*
Batraliyeva		Dinara			*
Traeen		Frode			
Bares		Jakub			
Hossain		Ghangir			*
Golden		Jay			
Dunham		Augusto			*
Kamakura		Akira			*
Evans		Blair			*
Cutler		Jennifer			*
Zuccarini		Gregory			*
Leggett		Graham			*
Poddar		Rakesh			*
Barry		Collin			*
Sharp		Annette			*
Karountzos		Ioannis			*
Ozgun		Arman			*
Maddula		Venkata Sree Rama Murty			*
Gupta		Stueti			
Helmi		Syed Ahmad			*

Densmore		Sabin			*
D'Angelo		Michael			*
Petrova		Penka			*
Rahim		Mohammad Azree			*
Frick		Jan			*
Arango		Juan			*
Meijer		Sebastiaan			
Stefansson		Gunnar			*
Orjuela Castro		Javier			
Vytlacil		Dalibor			
Kimura		Makoto			*
Won		Dong Kyu			
Ayres		Michael			*
Monteiro		Francisco			*
Almasri		Omar			*
Williams		Therese			*
Knisely		Robert			*
Clancy		Timothy			*
Sudler		Hasshi			*
Peña		Hernando			
Basulto Solis		Yanet			
Marston		Phillip			*
Ziemer		Norb			
Hooten		Sterling			
Briceno		Miyerlandi			
Parhizkar		Masoumeh			
Kazakov		Rossen			*
Papagari Sangareddy		Sridhar			
Carlini		Camillo			
Kumar		Ajith			*
Markou		Yiannis			*
MacKerrow		Ed			
Lytvyn		Anton			
Suhaimi		Nurul			
Hubik		Tomas			
O'Neil		Michael			
Evarts		Brian			*
Bugbee		Christopher			
Ngowtanasuwan		Grit			
Varma		Tathagat			
Thiengburanathum		Poon			

Sailesh		Chandra			
Amirani		Amir			
Rousseau		Julie			*
Bures		Vladimir			*
Quarles		William			
Alves		Jeuel			

Model Analysis

Annual Special Interest Group (SIG) Report

<i>SIG:</i>	Model Analysis (SIG-MA)
<i>Year:</i>	2012 – 2013
<i>Officers</i>	
President:	Gönenç Yücel, Jim Duggan (Co-chairs)
SIG-society liaison:	
Webmaster:	
<i>Website:</i>	http://sigs.systemdynamics.org/model-analysis/
<i>Last update:</i>	10/12/2013

The past year

SIG development

Activities

Please list all activities organized by the SIG as such in the table below; insert rows as needed.

<i>Activity</i>	<i>Date</i>	<i># Attendees</i>
Annual Meeting and Roundtable	24/07/2013	20

Publications

Please list relevant publications in form of books, chapters, articles and conference proceedings; add rows as needed. "Type" should be coded as follows: A=article; B=book; C=chapter;P=proceeding;S=software.

<i>Publication</i>	<i>Type</i>
Connecting Micro Dynamics and Population Distributions in System Dynamics Models, by Saeideh Fallah-Fini , Hazhir Rahmandad , Hsin-Jen Chen, Youfa Wang, SD Conference 2013	P
Doing more with Models: Illustration of a SD Approach for Dealing with Deeply Uncertain Issues, by Erik Pruyt , Jan Kwakkel , Caner Hamarat	P
A new Hybrid formalism that Integrate Different Simulation Approches to Develop a quantitative tools to support Decision Making, by Elpidio Romano	P
A Global Approach to the Optimal Control of System Dynamics Models, by Armin Fugenschuh , Ingmar Vierhaus	P
Estimation of Unknown Parameters in Dynamic Models Using the Method of Simulated Moments (MSM), by Hazhir Rahmandad , Mohammad Jalali , Hamed Ghodduzi	P
Evaluation of Alternative Dynamic Behavior Representations for Automated Model Output Classification and Clustering, by Nisa Onsel , Emre Onsel, Gönenç Yuçel	P
Disaggregation of a Stock Variable Based on Attribute Distribution, by Nitin Joglekar	P
Bayesian Parameter Estimation of System Dynamics Models Using Markov Chain Monte Carlo Methods: An Informal Introduction, by Nathaniel Osgood , Juxin Liu	P

Relationships with other societies or institutions

Please indicate other institutions and professional or scientific societies your SIG maintains a relationship with. Add rows as needed.

Institutional development

If you have made changes to your constitution or other developments the Society should know about, please mention them here.

Members

The stock and inflow of SIG members are important information for the Society. We would like to be able to distinguish between (new) SIG members who are members of the SD Society (Full Members) and (new) SIG members who are not members of the SD Society (Associate Members). Please provide us your best estimate of this information and any additional reflections you deem relevant.

Total number of Full Members this year	227
Total number of Associate Members this year	181
Number of new Associate Members this year	
Number of new Full Members this year	
Number of chapter members who were not Associate Members last year but are Full Members this year	
Number of chapter members who were Full Members last year but are not this year	
Number of chapter members who were Full Members last year but are not chapter members this year	

Additional considerations concerning the members' characteristics or the dynamics of the chapters

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Please list the SIG's active members in the table below. Add rows as needed.

<i>First Name</i>	<i>Middle Name</i>	<i>Last Name</i>	<i>Organization</i>	<i>Email</i>
<i>Gönenç</i>		<i>Yücel</i>	<i>Boğaziçi University</i>	
<i>Jim</i>		<i>Duggan</i>	<i>National University of Ireland, Galway</i>	
<i>Els</i>		<i>van Daalen</i>	<i>Delft University of Technology</i>	
<i>Jill</i>		<i>Slinger</i>	<i>Delft University of Technology</i>	
<i>David</i>		<i>Ford</i>	<i>Texas A&M</i>	

Your assessment of the closing year

Please elaborate concerning any particular development that may be relevant for the Society.

We have been putting some effort to create a knowledge base for the members on the SIG website. Towards that goal, the SIG-MA website now includes a repository of tools and methods, as well as an online bibliography. We expect to stimulate further member engagement as well as dissemination of information on SIG-related research.

This year, we also published a virtual issue of the system dynamics review, which provides a list of key texts in the field.

[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1099-1727/homepage/VirtualIssuesPage.html](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1727/homepage/VirtualIssuesPage.html)

The coming year

Challenges

What are the opportunities the SIG plans to take, or challenges you plan to approach during the coming year?

A key opportunity identified at our annual meeting is to disseminate best practice in model analysis to the wider SD community. With that in mind, a planned activity is to be organized at the 2014 conference (see below).

Planned activities

Which activities (like workshops, courses or seminars) does the SIG plan to perform during the coming year?

We plan to organize a workshop stream on the last day of the Delft conference that will focus on model analysis tools and techniques

Support required

What would you ask the Society to do to help the SIG?

It might be useful to help map out clusters of SIGs that could collaborate and share knowledge. For example, there may be excellent case studies/problems from other SIGs that could benefit from model analysis, and a way of identifying these opportunities could be useful.

Psychology - missing