

Annual Report 2014-2015

Annual Report 2014-2015

A Focus on Students



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About the Institute for Science Society and Policy

The Institute for Science, Society and Policy (ISSP) offers a unique, holistic and non-partisan approach to understanding the social implications of science and technology. The Institute informs science and technology policy through various channels and points of view.

Centered at the University of Ottawa, the ISSP carries out research, teaching, and public engagement on the relationship between society and science, innovation and technology, and fosters networks of people and organizations interested in this relationship.

The objective of the Institute is to improve the governance of science, technology and innovation. It does this by integrating research, education and public engagement at every stage of innovation – from developing science policy and improving how science and technology are regulated to understanding their social implications.

The ISSP's long-term goal is to develop highly skilled people and produce top quality research that will inform and improve decision-making about science and technology, both at home and internationally.

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I. Note from the Director

Dear Reader,

The academic year 2014-2015 continues to build on achievements and milestones laid out in previous years at the ISSP. Most significantly, we are preparing to launch our Collaborative Masters program in Science, Society and Policy in the fall 2015 semester with Patrick Fafard (Faculty of Social Sciences) serving as interim program director. I would like to thank Patrick, as well as Scott Findlay (Faculty of Science), and our research consultant Rachel So for getting this complex project off the ground.

This year also marks the planning of the next phase of the ISSP. We are moving from the Faculty of Arts to a Consortium led by the Faculty of Social Sciences (including the Faculty of Science, the Faculty of Arts and several others). This move will bring greater stability and visibility to our Institute. We welcome the opportunity to work with this new consortium as we continue to grow and build our presence here on the University of Ottawa campus.

Other notable achievements include initiatives to enhance our engagement of professionals and students (for example, through Science Policy Roundtables and support for the new student-led Science Policy Student Society) as well as improvements to the ISSP's web presence (including the launch of a new website and a Twitter feed). This continues ISSP's tradition of network building and community engagement.

In addition, this year we hosted our first Fulbright Visiting Research Chair in Science and Society, and we look forward to hosting two more in the next academic year.

With this fifth annual report, I believe we can claim that we are further on our way to becoming a well-established organization. Here, we continue our tradition of delivering a detailed, academic annual report. We hope it serves its purpose as both a record keeper and an informative brief.

While I am stepping down as Director in June 2015 and passing the mantle to a new Director, I look forward to maintaining an active involvement in the ISSP.

As always, we welcome your interest, participation and contributions to the ISSP (issp@uottawa.ca).

Marc Saner Director, Institute for Science, Society and Policy University of Ottawa



II. Administrative Report

Note: The following three pages are in the format required by the Administrative Committee of the University of Ottawa's Office of the Vice-President, Research

Name of the research centre or institute

Institute for Science, Society and Policy (ISSP)

Names and titles of main administrators (including the Director)

- <u>Director</u>: Marc **Saner**, Geography, Faculty of Arts
- Administration (on contract): Rachel **So** (Alumnus, Department of Biology)
- Interim Director of the Graduate Program: Patrick Fafard, GPSIA, Faculty of **Social Sciences**
- Director of the Graduate Program (on leave to the IE): Scott Findlay, Biology. Faculty of Science

Mission or main objectives of the centre (or institute)

The ISSP carries out research, teaching and public outreach on the relationship between society and STI (science, technology and innovation).

Our objective is to improve capacity for the effective governance of STI. We cover three components:

- "science for policy" (e.g., evidence-based decision-making);
- "policy for science" (e.g., innovation policies); and
- "technology governance (e.g., regulation and public engagement of emerging technologies).



The members listed above (**Saner, Fafard, Findley**) are most active. Other noteworthy members:

- Jonathan **Linton**, Telfer: Bromley Event
- Paul **Dufour**, Adjunct Professor at the ISSP: Fourth-year science policy course, Faculty of Science
- Margaret McCuaig-Johnston, Senior Fellow at the ISSP: Fulbright liaison, China science policy
- Jackie **Dawson**, Rocci **Luppicini**, Daniel **Paré** (ISSP Faculty); Ruby **Heap**, Gwynne **Jones**, Rees **Kassen**, Ian **Kerr** and Brenda **Wilson** (ISSP Core Group).

We have an additional **20 professors affiliated** (from all faculties); they are active depending on projects and events. We also have **9 Fellows**, a writer-in-residence, an Advisory Committee with **15 eminent members** chaired by Denise **Amyot**, over **1200 opt-in subscribers** on our bilingual Newsletter mailing list and so forth. We co-organize the **Ottawa Science Policy Roundtable** and support the new **uOttawa Science Policy Society** (student-run). A large network.

No ISSP graduate students yet – but we facilitated the arrival of Banting Fellow, Roger **Staney**.

Director Marc Saner has 2 Masters Students and 2 PhD Students, one of whom is housed at the ISSP.



Key activities and achievements in 2014-2015

PROGRAM

 Approval and marketing of the Collaborative Masters in Science, Society and Policy (SSP)

RESEARCH

- All ISSP-affiliated faculty and core group members are active in research.
- Marc Saner completed his SSHRC Public Outreach grant and wrote (in collaboration with Bruce Doern) a SSHRC Insight Development Grant (verdict pending). He also participated as a key partner in a SSHRC Partnership Grant (only the LOI was funded, however).
- ISSP Reports
 - o 8 Policy Briefs on "The Science Policy Interface"
 - o 3 Technology Timelines (Nanotechnology, Synthetic Biology, Biofuels)

STUDENTS

- Annual Bromley Event (the 2014 event was held on the University of Ottawa main campus, the 2015 event will feature a study tour to Washington DC with students and professors from 6 different countries)
- Student participation at several editions of the Ottawa Science Policy Roundtable
- Supported a group of science students in the establishment of the University of Ottawa Science Policy Society (only McGill has a similar group in all of Canada)

EVENTS (Selection)

- Munir Sheikh: The Critical Need for Evidence in Developing Good Public Policies
- Stathis **Psillos**: From the Bankruptcy of Science to the Death of Evidence: Science and its Values
- Mu Rongping: Policy Framework for Innovation-Driven Development in China
- Joachim **Knebel**: Energy Perspectives for Germany and Europe
- Special event at Congress 2015: "The Future of Work" (with speakers from Oxford and Yale University)

MEDIA

ISSP Members frequently give media interviews on topics related to science, society and policy



III. Science, Society and Policy (SSP) News

SSP News, June 2014

SSP Graduate Program Receives Approval



We are delighted to announce that our proposed graduate programs in science, society and policy have been approved by the Senate of the University of Ottawa.

Pending provincial approvals, the ISSP will be offering a collaborative Master's and a Graduate Diploma in Science, Society and Policy, in both English and French.

The collaborative Master's will provide an attractive option for University of Ottawa graduate students interested in complementing their Master's degree with training in science, technology and innovation policy and governance. The Graduate Diploma will offer intensive professional training for working professionals and recent graduates in a 1-year program. Both programs aim to develop a cohort of practitioners for both the private and public sectors, with the skills to design and evaluate science, technology and innovation policy.

Stay tuned for more updates and for the program launch date!

Innovation Decalogue: Corporate Endorsement

The ISSP is pleased to announce that the Innovation Decalogue has received corporate endorsement from the Presidents' Committee on Science, Technology and Innovation of the Association of Canadian Community Colleges.

The Innovation Decalogue outlines ten essential criteria for developing effective innovation policies and for moving Canadian innovation policy to the next level.

The <u>Innovation Decalogue</u> is still open for personal and corporate endorsement. Please e-mail issp@uottawa.ca if you would like to become an endorser.



Bromley Memorial Event a Success



The 2014 Bromley Memorial Lecture "Policy Framework for Innovation-driven Development in China" was presented on April 24 by Professor Mu Rongping, Director of the Institute of Policy and Management at the Chinese Academy of Sciences and Vice President of the Chinese Association for the Science of Science Policy and S&T Research. Professor Mu outlined Chinese experiences in policy-making based on long-term foresights.

Professor Mu and the 2014 Bromley Event student participants (Professor Mu is 8th from the left)

The video of Professor Mu's lecture is now available online.

The University of Ottawa recently signed a far-reaching agreement with several institutions in Lyon. We are pleased to announce that the Bromley lecture and event was included in this promising venture. Visit the 2014 Bromley event website for more information about the speakers and event participants and to view the event photo gallery.

The ISSP will welcome Dr. Tee Guidotti as Fulbright Visiting Research Chair



We are pleased to announce that Dr. Tee Guidotti, international consultant and scholar in occupational and environmental health, will be joining the ISSP as Fulbright Visiting Research Chair in January 2015 for six months. Vice-President for Health/Safety, Environment and Sustainability at Medical Advisory Services (MAS) and recipient of the William S. Knudsen Award for Lifetime Achievement, Dr. Guidotti brings with him a wealth of knowledge and expertise.

Dr. Guidotti has a special interest in evidence-based medical dispute resolution, that is, the application of scientific

evidence to law, adjudication and policy. He will be involved in various ISSP activities.

Visit Dr. Guidotti's personal website (www.teeguidotti.com) for more information on his professional and academic careers.

Applications are currently being accepted for the Visiting Research Chair in Science and Society for September 2015/January 2016. Visit the Fulbright website for more information and to apply. Applications must be received before August 1, 2014. You may also wish to contact Margaret McCuaig-Johnston at the ISSP for more details.



ISSP Network Member Activities



The University of Ottawa's online magazine, Tabaret, covered ISSP Associate Director of Arctic Development Jackie Dawson's research in a recent article.

Over the last decade, Dawson has cultivated relationships with Inuit communities in Pond Inlet, Gjoa Haven, and Iqaluit in order to better understand

and study the social impact of sea ice melt, increased shipping, and economic development on Northern communities. With the onslaught of new arrivals in these communities, Dawson says that there is an increased need to educate tourists to respect local Inuit communities.

Read the full article, entitled "Experts on Ice," here.

ISSP Associate Director of Graduate Studies Scott Findlay recently published an article in the *Ottawa Citizen* entitled "The Uses of Evidence in Politics."

Read the full article here.

SSP Senior Fellow Kamiel Gabriel participated in the Chief Scientists and Opinion Leaders Meeting in Montréal on June 10. Assembled by Québec chief scientist Rémi Quirion, this meeting examined different perspectives on science policy and the models for integrating science advice and decision-making.

ISSP Fellow Paul Dufour recently participated and presented in the first ever Science and Diplomacy Course, sponsored by The World Academy of Science and the American Association for the Advancement of Science in Trieste, Italy.

More information on the workshop is available here.

Paul Dufour also presented at the May 28 panel on <u>Challenges and Opportunities: How Science Policy Contributes to Shaping our Society</u> organized by the McGill Science and Policy Exchange in Montréal.



Partnership Building Continues

We are constantly expanding and strengthening our SSP network in the National Capital Region, across Canada, and abroad.

The ISSP recently sponsored the second annual conference on the Governance of Emerging Technologies: Law, Policy, and Ethics held by the Center for Law, Science & Innovation at Arizona State University



and an upcoming conference, jointly hosted by Carleton University and Dominican University College, "Jacques Ellul, 20 Years On: Communicating Humanly in an Age of Technology: Jacques Ellul in the 21st Century." This conference will be held July 13-15, 2014 in Ottawa.

Science Policy Roundtable

In collaboration with partners in the Government of Canada and MITACS, the ISSP held a Science Policy Roundtable Incentives Workshop on May 8 to great success. Participants discussed and evaluated incentives aimed at improving the interface between scientists and decision makers. Results will be published shortly in a special "summer reading" edition of SSP News.



SSP News, September 2014

ISSP Year 5



Our fifth year of operation is a time of exciting change. We are expanding out of the Faculty of Arts to better connect to all faculties and we are working on the launch of our first graduate program, planned for next fall. In January, Dr. Tee Guidotti, from Washington D.C. will join us as our first Fulbright Visiting Research Chair.

We are also preparing a new website and a social media strategy. We will cap this year with an event at Congress 2015 on "Technological Unemployment and the Future of Work." S&T policy provides a near endless array of worthwhile topics, and this diversity of issues is one bit of certainty within the complex implications of accelerated

science and technology. I hope you keep enjoying SSP News; we really try to keep it short and to the point.

ISSP Graduate Program Interim Director

We are delighted to announce that ISSP Core Group member Dr. Patrick Fafard will be stepping in as Interim Director of the ISSP's new graduate program, which is set to launch next year.

An associate professor at the Graduate School of Public and International Affairs at the University of Ottawa, Patrick Fafard holds a Ph.D. in Political Studies from Queen's University, where he also taught at the School of Policy Studies from 1995 to 1998. Before joining the University of Ottawa, he also served as Director-General of Strategic Policy and Research at the Intergovernmental Affairs Secretariat of the Privy



Council Office of Canada (2002-2005). He also has served in senior positions in the Government of Saskatchewan and with the governments of Alberta and Ontario.

His current research interest is in all aspects of public health policy, and specifically the role of knowledge and evidence. He also has a longstanding interest in federalism and intergovernmental relations, and his current research focuses on the role of provincial governments in the negotiation of international trade agreements.



We are excited to see what Patrick Fafard will bring to this new and innovative program as Interim Director!

ISSP is Co-organizing a Conference in Taipei, October 16-17

ISSP Associate Director of Technology Innovation Jonathan Linton is coorganizing a high-level conference in Taiwan that will take place October 16-17, 2014. The International Conference of Science and Technology Entrepreneurship Policy and Regulation, which will be held in Taipei, features an impressive program intended to promote communication and collaboration between science and technology policy professionals around the world.

Science Education Symposium



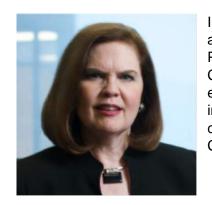
The University of Ottawa's Faculty of Education will be hosting the international symposium At the Crossroads of Environmental and Science Education: A Collaborative Research Agenda on Thursday, October 9, 2014.

Organized and Chaired by ISSP affiliate Giuliano Reis, this symposium will feature invited speakers Dr. Larry Bencze (University of Toronto), Dr. Alan Oliveira (University at Albany, SUNY, USA), Dr. Rute Monteiro (University of Algarve, Portugal) and Dr. Kjellrun Hiis Hauge (Bergen University College, Norway).

To register, e-mail your full name to crossroads2014@rogers.com. Registration is open until October 1, 2014.

For more information, contact Giuliano Reis at greis@uottawa.ca.

ISSP Network Member Activities



In July 2014, Senior Fellow Margaret McCuaig-Johnston attended the China/Canada Workshop on Building Dual PhD Programs, held in Harbin, China. There were 13 Canadian and 21 Chinese universities represented at the event, at the Vice-President and Dean levels. This impressive workshop was a practical step forward in creating dual degree programs between institutions in Canada and China.



Margaret has recently completed a chapter on Canada/China Relations for an upcoming book on China's International S&T Relations edited by Denis Simon.

ISSP writer-in-residence Jacob Berkowitz and affiliated professor Kevin Orr teamed up this summer to run a workshop for Berkowitz's play "Entangled" in association with They presented a partial performance of the play in August to great success!

In August, 2014, ISSP fellow Heather Douglas traveled to Auckland, New Zealand to attend the global conference Science Advice to Governments. Check out the <u>conference blog and news</u> page for all the updates from the event, as well as a reflection piece on the event by Heather Douglas!

PhD student Sasha Kebo was interviewed for the Blue Legacy Expedition documentaries, which take an in-depth look at the Ottawa River, with special attention to its governance, water quality, and the impact of dams. The documentaries were screened on September 24, 2014.

Recent Science Policy Publications by ISSP Network Members

ISSP Fellow Paul Dufour published an article entitled "A World Cup for Science Diplomacy" in the July 2014 issue of Research Fortnight. The article highlights the main issues covered at the special workshop and training course on science diplomacy jointly hosted by the World Academy of Sciences and the American Association for the Advancement of Science in Trieste, Italy this summer. Paul was invited to participate in this event, which brought together a unique group of experts from around the globe to improve their ability to develop science diplomacy projects.

ISSP fellows Kamiel Gabriel and Richard Hawkins recently published articles in Research Money: "Reaping the Value of S&T Investments in Canada," Dr. Kamiel Gabriel and "Is Canadian innovation past its due date?," Dr. Richard Hawkins.

The ISSP Will Launch New Website!

We are pleased to announce the official launch of our new website design on October 30, 2014.

Check it out and let us know what you think! E-mail your thoughts to issp@uottawa.ca.



SSP News, November 2014

ISSP Website Launch

The ISSP's new website is now officially live! ISSP and uOttawa staff have been working hard over the past few months to revamp and update our website with a brand new design. You will still find much of our original content, including our Research and Publications page, where you can access many of the reports published by the ISSP on science and technology policy.



Special thanks go to Rachel So (ISSP Research Consultant) and Sarah Farewell (our long-standing work-study student) as well as Karine Proulx (Marketing and Communications Manager, Faculty of Arts).

We are still working out some of the kinks and will be updating the site frequently in the coming weeks. Check it out and let us know what you think!

Please e-mail any comments or suggestions to us at issp@uottawa.ca.

ISSP Twitter Account



We are pleased to announce that our new Twitter handle, @ISSP uOttawa is up and running! Follow us and keep up to date on everything ISSP-related!

You can also check out photos and videos of our past events on Flickr and our Vimeo channel!

Upcoming Event

The ISSP will be hosting a talk by Dr. Joachim Knebel, Head of Mechanical and Electrical Engineering at the Karlsruhe Institute of Technology in Germany. The talk, which will cover energy turnaround and related policy changes in Germany, will be held on December 11 at 1 pm. The event will take place in room 124 of the Lamoureux building on the University of Ottawa's main campus.

Stay tuned for more details!



ISSP Network Member Activities

ISSP Director Marc Saner, Core Group member Scott Findlay, and Fellow Jeff Kinder participated in the 5th Annual Science Policy Exchange: The State of Innovation in Canada on October 3 in Montreal, which ISSP Fellow Paul Dufour helped organize. Panel topics included: "Business Innovation in Canada: Are We Lagging Behind?," "Intellectual Property and New Technology: The Pros and Cons of Patents in Innovation," and "Bioethics and Law: Bridging the Gap Between Innovative Technologies and Policy."



Scott Findlay presented a special keynote address at the event entitled "Governing in the Dark: Evidence, Accountability and the Future of Canadian Science."

ISSP Core Group member Brenda Wilson hosted UK expert Dr. Stuart Hogarth, Senior Research Fellow at the Department of Social Science, Health and Medicine, King's College London. He presented the talk "Blockbuster diagnostics? Reflections on the political economy of diagnostic innovation." The event took place on October 16.

Marc Saner presented a talk on converging technologies at the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) Extraordinary Session in Quebec City. Jointly organized by UNESCO and the Science and Technology Ethics Commission of Quebec and hosted at Laval University, this event marks the first time a COMEST Extraordinary Session was held in North America.

Some of the topics discussed include the relations between COMEST and the International Bioethics Committee (IBC), the ethics of converging technologies and the post-2015 sustainable development agenda.

Marc Saner was recently named a Fellow at the <u>Balsillie School of International Affairs</u> (<u>BSIA</u>), an institute for advanced research, education, and outreach in the fields of global governance and international public policy.

BSIA is an equal collaboration among the Centre for International Governance Innovation, the University of Waterloo, and Wilfrid Laurier University with the aim of developing new solutions to humanity's critical problems, improving global governance, and enhancing the quality of people's lives around the world.



Recent Science Policy Publications



Paul Dufour recently co-published a book chapter with Kathryn O'Hara in How Ottawa Spends 2014-15: The Harper Government - Good to Go?. The chapter, entitled "How Accurate is the Harper Government Misinformation? Scientific Evidence and Scientists in Federal Policy Making," discusses the Harper government's incursion into science policy in Canada and the emergence of an activist research community as a result of the muzzling of government scientists.

Paul Dufour also published an article in the September 14 edition of Embassy, entitled "The Case for Science Diplomacy." He discusses his participation in a training course held in Trieste, Italy, that was jointly organized by the World Academy of Sciences and the American Association for the Advancement of Science, where participants from all over the world explored emerging issues of science diplomacy. The article examines scientific collaboration and diplomacy, with special attention to the role that Canada plays in this "global science theatre."

Marc Saner and Scott Findlay were interviewed by the University of Ottawa's Englishlanguage student newspaper, The Fulcrum, about Canada's war on science.

Read the full article here

Evidence for Democracy (E4D), a non-profit, non-partisan group based in Ottawa that advocates for the transparent use of science and evidence in public policy and government decision-making, in collaboration with Simon Fraser University, recently published a report entitled "Can Scientists Speak?"

This report suggests that Canada's federal scientists are in many cases not as free to communicate the results of their research as their American counterparts. The authors graded 16 Canadian federal departments and found that all but one department scored lower than the US average for 2013.

Read the full report <u>here</u>.



SSP News, December 2014

Happy Holidays from the ISSP!

The very best holiday wishes to you and yours from all of us at the ISSP.

We have had a busy year at the Institute, between publishing our series of Science/Policy Briefs, hosting various expert speaker events, and having our Graduate program approved for next year. We look forward to all that the new year will bring!

Thank you for your continued support and readership. We'll be back with a new edition of SSP News in 2015!

December 11 talk by Dr. Joachim Knebel

The ISSP will be hosting a talk by Dr. Joachim Knebel, Head of Mechanical and Electrical Engineering from the <u>Karlsruhe Institute of Technology</u> in Germany.

The talk, which will cover the German energy turnaround and related policy changes, will be held on December 11 at 1:00-2:30 pm. The event will take place in Room 124 of the Lamoureux building on the University of Ottawa's main campus.



Visit the event webpage to read Dr. Knebel's biography and the abstract of his talk.

Registration is not required and admission is free. A pizza lunch will be served at 12:30 pm.

Canada's Science, Technology and Innovation Strategy 2014

The Government of Canada has released its new <u>ST&I Strategy</u>. The ISSP is currently analyzing the implications from the perspective of the <u>Innovation Decalogue</u> and welcomes your comments and interest.

Call for papers for panel discussion in Milan, July 2015



Patrick Fafard, Associate Professor in the Graduate School of Public and International Affairs and SSP Graduate Program Director, is organizing a panel at the <u>Second International</u> <u>Conference on Public Policy</u> planned for Milan in July 2015.



The title of the panel is: Learning Lessons from Ebola: Policy Making for Public Health.

The goal is to assemble a range of papers analyzing the Ebola outbreak using the theoretical insights of political science and international relations.

ISSP Network Member Activities

Richard Hawkins and Paul Dufour both recently published articles in the December 1st Innovation-themed issue of The Hill Times.

In the article, Is innovation an election issue?, Richard Hawkins discusses the link between the growth-productivity-jobs triad and innovation.

Paul's article, Driving Innovation-are we there yet?, shines a light on the need for resources, continued support, and champions, in order to truly stimulate novel science and innovation policy and ideas.

Marc Saner gave the talk "On Humanized Robots and Robotized Humans" at Yale Interdisciplinary Center for Bioethics on December 3, 2014.

Scott Findlay wrote an op-ed entitled "Stephen Harper government confuses science for mere opinion" in the Toronto Star on December 5, 2014.



SSP News, February 2015

ISSP Graduate Program Official Launch



I am pleased to officially announce the launch of the Collaborative Master's program in Science, Society and Policy in September 2015!

The program will allow students registered in one of the participating master's programs to widen their understanding of the interplay between science and society. Students will get the opportunity to connect with leading experts and gain the skills needed to analyze and understand how real-world science is used in policy-making and how policies affect the scientific enterprise. They will also earn the

designation "Specialization in Science, Society and Policy." Special thanks to Scott Findlay, Patrick Fafard and Rachel So for all their hard work in the development of the program throughout every step of the approval process.

For more information on the Collaborative Master's and participating programs, please visit the <u>ISSP's website</u> or the <u>FGPS website</u>. Please do not hesitate to contact our graduate program coordinator at spgrad@uottawa.ca with any questions you may have.

Marc Saner Director, ISSP

The ISSP welcomes Dr. Tee Guidotti



Please join us in welcoming Dr. Tee Guidotti to the ISSP as the Fulbright Visiting Research Chair in Science and Society. Dr. Guidotti is an international consultant and scholar with a wealth of knowledge and experience working in the field of occupational and environmental health.

Dr. Guidotti has medical specialty credentials in Canada (FRCPC in occupational medicine), the US (board certification in occupational medicine and pulmonary medicine) and the UK (FFOM). He is also a diplomate of the American Board of

Toxicology. Dr. Guidotti has a special interest in evidence-based medical dispute resolution - the application of scientific evidence to law, adjudication and policy.

He was recently elected President-Elect of scientific research honour society <u>Sigma Xi</u>. Founded in 1886, Sigma Xi is the second-largest (about 12,000 members) and second-oldest scientific research organization in North America.



Dr. Guidotti is participating in various ISSP activities including graduate courses, events and research.

Apply now to participate in the 10th Annual Bromley Memorial Event in Washington, DC!

The 10th Annual Bromley Memorial Event will take place in Washington, DC from April 29 to May 1, 2015.

Graduate students from any faculty interested in science, technology and innovation policy are encouraged to apply to participate. Expenses are covered between Ottawa and Washington (for flights, transportation, lodging and meals). Students are expected to act as ambassadors for the ISSP by creating a strong positive impression on the speakers and other participants.



Interested students should submit a paragraph or two about their interests in Science, Technology, Innovation policy to issp@uOttawa.ca before February 15, 2015.

Save the date: Symposium on Technological Unemployment and the Future of Work on June 3, 2015

On June 3, 2015, the ISSP will be hosting a symposium on Technological Unemployment and the Future of Work at the 84th Congress of the Humanities and Social Sciences at the University of Ottawa.

This half-day symposium will address the idea that advances in technology and artificial intelligence may soon allow machines to replace workers in jobs traditionally thought to be unfit for automation such as airline pilot, accountant and professor. The session will explore these themes by unpacking trends in emerging technologies and assessing their potential impact on jobs. Our keynote speaker will be Dr. Nick Bostrom of Oxford University and Director, Future of Humanity Institute. Dr. Bostrom is an expert on the ethics and risks of artificial intelligence and is the author of the recent book Superintelligence: Paths, Dangers, Strategies.

Stay tuned for more details about this event in the coming months!

ISSP Network Member Activities

We congratulate ISSP fellow Peter Calamai on being named a member of the Order of Canada for his achievements as a science journalist and for his contributions to the cause of literacy.





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Gregor Wolbring was recently named Editor in Chief of <u>Societies</u>, an international, peer reviewed, open access journal of sociology.

Paul Dufour recently published an opinion piece in The Hill Times entitled <u>Federal</u> <u>science</u>, <u>technology</u>, <u>innovation strategy 'mostly stale air'</u>. He discusses the policy report <u>Seizing Canada's Moment: Moving Forward in Science</u>, <u>Technology and Innovation 2014</u> and what it means for STI research in Canada.

Scott Findlay spoke as an invited panelist at the February 4 session organized by the Liberal Caucus in the Senate on the future of Canadian research and development.

Jackie Dawson moderated the event The Polar Sea: How Climate Change is Changing Us - Panel Discussion & Documentary Screening. Following a screening of the documentary, Jackie led a discussion with the filmmaker, explorer, and Arctic experts about the numerous aspects of life in the Arctic and on the ins and outs of how the film was made on some of the most rugged terrain on Earth. The event, which took place on January 28, was jointly hosted by the University of Ottawa Environment, Society and Policy Group and the Embassy of the United States.

Call for students to join the University of Ottawa Science Policy Society

The University of Ottawa Science Policy Society is looking for interested students to join in on the discussion surrounding the science/policy interface!

This student club is designed to provide young researchers with information and issues affecting the relationship between science, society and policy by fostering discussion among members and by organizing networking events. The goal is to initiate a dialogue between students, policymakers, and scientists in order to forge a strong link between them and promote evidence-based policy-making.



For more information, please e-mail uosciencepolicysociety@gmail.com.



SSP News, April 2015

ISSP 2.0 - A Word from the Director



As I am entering the final three months of my five-year term, I want to briefly take stock and describe the transition planning. I have in front of me our first four annual reports -- I believe their titles describe the development of the ISSP guite well: First Steps, Creating a Network, Building on Strong Foundations and Towards a Graduate Program.

Within five years, we went from an idea to a thriving network with six faculties that furnish the members of the management team, approximately 30 uOttawa professors affiliated, an additional 25 leading thinkers from across the country in fellowship positions or on our Advisory Committee, and an opt-in bilingual mailing list with approximately 1200 subscribers.

Our first graduate education program, the Collaborative Masters in Science, Society and Policy will start this fall. Also noteworthy, is our new student club: The University of Ottawa Science Policy Society (more information later in this newsletter). There are only two student organizations on this topic in all of Canada (the other is McGill's very impressive Science & Policy Exchange). Given these developments, our next annual report will be entitled A Focus on Students.

My personal vision for the ISSP continues to be student-centered. A good education on science, society and policy requires breadth and an understanding of the healthy tension between those who look forward to a completely transformed world and those who study past and current processes with a critical eye on the pace and nature of scientific and technological developments. As a scientist and ethicist, I am very aware of this tension and I am convinced that it's helpful for students to fully understand how these diverging positions are conceived and argued.

The Collaborative Masters is hopefully just a first step. On request of the Dean of Science, I drafted the concept of a stand-alone one-year Masters program for scientists. Tentatively named ELITE it would focus on Experiential Learning, Integrative Thinking and Team Essentials. The ISSP also has the capacity to carry out continuing education and workshops - lots of ideas are on the table! Moreover, we continue to offer a regular undergraduate course: Paul Dufour's Primer on Science Policy at the Faculty of Science.

Research remains alive and well. The ISSP has so far played mostly the role of matchmaker, facilitator and connective tissue to help scholars tie together our three areas of focus: (1) science for policy (for example, evidence-based decision-making), (2) policy for science (for example, science and innovation policy) and (3) technology governance (for example, regulation and ethics). There could be an opportunity for the ISSP to play a stronger role, but it's not easy to align dozens of scholars who are justly empowered with academic freedom. One successful approach to research has been the housing or support of ISSP Fellows. Senior Fellow Margaret McCuaig-Johnston is rapidly



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establishing herself as a leading scholar in science and innovation policy in China, Adjunct Professor Paul Dufour is much in demand nationally and internationally as a scholar and pundit on Canadian science history and policy, and Senior Fellow Richard Hawkins (University of Calgary) took the lead authorship of our Innovation Decalogue. Another successful approach was the collaboration with graduate students as our series of briefs on the Science Policy Interface and our Technology Timelines profess.

Our outreach activities are creative and maximize available resources. In order to secure and develop future resources, I initiated the creation of an ISSP Consortium in collaboration with my close colleagues Profs. Scott Findlay and Patrick Fafard. We were fortunate that the Dean of Social Sciences agreed to take the lead and that the Dean of Science also put his strong support behind this concept. Thank you, Dean Mérette and Dean Perry! The transfer of leadership from the Faculty of Arts to a Consortium led by the Faculty of Social Sciences means that the internal competition to select my successor will be led by the Social Sciences in collaboration with the Vice-President Research Office. I am looking forward to the vision of the next Director, as I will remain involved in teaching ISSP courses.

The final quarter of my Directorship will be a busy time with the launch of our first graduate program. I am very grateful for the highly competent leadership of our Research Consultant Rachel So in collaboration with Interim Program Director Patrick Fafard. We are also preparing the hand-over materials and are fortunate to have a professional archivist, Sarah Farewell, on staff as a workplace student. Sarah completed a beautiful Archive and Process Management Manual for the ISSP.

There are a series of interesting events coming up. At the end of April, Prof. Jonathan Linton will lead a delegation of students to Washington DC in the 10th Annual Bromley Memorial Event (which takes place in Ottawa in alternate years). Under his leadership, this event has become increasingly international. The collaboration with our Fulbright Scholar Dr. Tee Guidotti has led to additional activities, for example his very successful recent lecture on Health and Sustainability. We continue to host the Ottawa Science Policy Roundtable (more information below in this newsletter) and are looking forward to the first events organized by our enthusiastic students at the new uOttawa Science Policy Society.

Last but not least, I am preparing a major event on Technological Unemployment and the Future of Work in collaboration with Masters student Alin Charrière. We are excited to be hosting a debate among world-renowned experts from Oxford, Yale and Ryerson as part of Congress 2015. An advance thank-you to recent Order of Canada recipient, ISSP Fellow and science journalist extraordinaire Peter Calamai for moderating the panel. We hope to see you on campus on the morning of Wednesday, June 3, 2015 - please mark your calendars.

Marc Saner, Director ISSP



Science Policy Student Group

We are pleased to announce the official launch of the University of Ottawa Science Policy Society!

This student club is designed to provide young researchers with information and issues affecting the relationship between science, society and policy by fostering discussion among members and by organizing networking events. The goal is to initiate a dialogue between students, policymakers, and scientists in order to forge a strong link between them and promote evidence-based policy-making.



We congratulate John Garcia, Alexandre Giroux, and Andrew Wong (pictured on the right) for this initiative.

To become a member of the University of Ottawa Science Policy Association, please send an e-mail to uosciencepolicysociety@gmail.com.

Collaborative Masters: Ad campaign



If you find yourself on campus, keep an eye out for our brand new SSP Collaborative Program posters in the coming weeks!

As a reminder, registration (for students in participating programs at uOttawa) to join the program in September 2015 is now open!

Ottawa Science Policy Roundtable

Following its 5th successful event, the Ottawa Science Policy Roundtable, led by Eric Gagné, Jeff Kinder, Robert Annan, and Marc Saner, is inviting science policy professionals, interested students and practitioners in the National Capital region to participate in a series of informal discussions to share their perspectives and network with other practitioners.

The Roundtable is an ad hoc gathering that aims to facilitate regular, open discussion of issues of relevance to science policy with an eye to solving problems and strengthening participants in the science policy roles that they play in their own organizations. Discussions focus on science policy issues that cut across jurisdictions and sectors. Roundtable participants are committed to sharing their perspectives and building and maintaining a network of science policy professionals. We define the scope of "science



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policy" to include "policy for science", "science for policy" and also technology policy issues.

The Roundtable grew from a shared interest, among science policy practitioners in government, academia, and the non-profit sector, in creating an information-sharing network to identify and address emerging issues in science policy.

If you are interested in participating in Ottawa Science Policy Roundtable events, please contact the ISSP at issp@uottawa.ca for more information.

Future of Work Conference Update

We are pleased to announce that the program has been finalized for the ISSP's symposium on Technological Unemployment and the Future of Work, which will be held on June 3, 2015 at the University of Ottawa as part of the 84th Congress of the Humanities and Social Sciences.

Our keynote speaker will be Dr. Nick Bostrom of Oxford University and Director, Future of Humanity Institute. Dr. Bostrom is an expert on the ethics and risks of artificial intelligence and is the author of the recent book Superintelligence: Paths, Dangers, Strategies. The symposium will also feature a response to the keynote by Wendell Wallach, consultant, ethicist, and scholar at Yale University's Interdisciplinary Center for Bioethics, followed by a panel discussion moderated by science journalist Peter Calamai, featuring Nick Bostrom, Wendell Wallach and Dr. Wendy Cukier, Vice-President of Research and Innovation, Ryerson University.

ISSP partnership with the Virtual Institute for Responsible Innovation (VIRI)

The ISSP was recently named as a partner of the <u>Virtual Institute for Responsible Innovation (VIRI)</u>. This organization aims to develop and disseminate a sophisticated conceptual and operational understanding of responsible innovation by facilitating collaborative research, training and outreach activities among a broad partnership of academic and non-academic institutions.

CSPC 2015 Call For Volunteers and Proposals



interested in to info@sciencepolicy.ca.

The 7th Canadian Science Policy Conference, which will be held November 25-27, 2015 in Ottawa is looking for volunteers for various committees. If you are interested in lending a hand, please consult the list of volunteer opportunities available on the event website, then e-mail a copy of your resumé and the role you are



The conference is also looking for interactive panel submissions that will engage CSPC participants in outcomes-oriented dialogue. The themes that will be covered at the 2015 conference will be:

- The Impact of Transformative and Converging Technologies on Private Sector Innovation and Productivity
- Big Science in Canada: Realizing the Benefits
- Transformation of Science, Society and Research in the Digital Age; Open Science, Participation, Security and Confidentiality.
- Science and Innovation for Development
- Evidence-Based Decision Making; The Challenge of Connecting Science and Policy Making

Visit the CSPC website for more information about formatting and submitting a panel proposal.



Appendix I - ISSP Network

Appendix IA – Advisory Committee Members



<u>Denise Amyot</u> (Chair)
President and CEO
Association of Canadian Community Colleges (ACCC)



Jason Blackstock
Deputy Head of Department
Department of Science, Technology, Engineering and
Public Policy
University College London (UCL)



Pierre-Gerlier Forest
Professor and Director
Institute for Health and Social Policy
Bloomberg School of Public Health
John Hopkins University



David Forrest
Director
Innovation Watch



Michael Geist
Canada Research Chair of Internet
and E-commerce Law
Faculty of Law
University of Ottawa



Yves Gingras
Professor
Université du Québec à Montréal





Ruby Heap Professor Faculty of Arts Associate Vice-President, Research University of Ottawa



Michèle S. Jean Quebec's Permanent Representative to UNESCO The Canadian Commission for UNESCO



Avrim Lazar President and CEO Forest Products Association of Canada



Gordon McOuat Professor of Humanities University of King's College **Project Director** Situating Science



Maureen McTeer Head, International Health and Maternal Health Policy Group Joe Clark and Associates



Professor Faculty of Law University of Ottawa Commissioner Ontario Human Rights Commission

Errol Mendes





Penny Park
Executive Director
Science Media Centre of Canada



Robert Slater
Professor
Carleton University



<u>David Zussman</u>
Jarislowsky Chair on Management in the Public Sector
Graduate School of Public and International Affairs
University of Ottawa



Appendix IB - ISSP Core Group



Marc Saner (Chair) - Director Institute for Science, Society and Policy

Associate Professor Department of Geography Faculty of Arts



Jackie Dawson – Associate Director Arctic Development Assistant Professor Department of Geography Faculty of Arts

Canada Research Chair in Environment, Society and Policy



Patrick Fafard Associate Professor Graduate School of Public and International Affairs Faculty of Social Sciences



Scott Findlay – Associate Director Graduate Studies **Associate Professor** Department of Biology Faculty of Science



Ruby Heap Full Professor Department of History Faculty of Arts



Gwynne Jones Full Professor Department of Critical Care Faculty of Medicine





Rees Kassen
Associate Professor
Department of Biology
Faculty of Science

University Research Chair in Experimental Evolution



<u>Ian Kerr</u>
Associate Professor
Common Law Section
Faculty of Law

Canada Research Chair in Ethics, Law, and Technology



Jonathan Linton – Associate Director Technology Innovation Editor-in-Chief Technovation Full Professor Telfer School of Management

Power Corporation Professor in Management of Technological Enterprises



<u>Daniel Paré</u> – Associate Director Academic Outreach Associate Professor Department of Communication Faculty of Arts



Brenda Wilson
Associate Professor
Department of Epidemiology and
Community Medicine
Faculty of Medicine



Appendix IC - ISSP Affiliates



Steffany Bennett Associate Professor Department of Biochemistry, Microbiology and Immunology Faculty of Medicine



Jeremy de Beer Associate Professor Common Law Section Faculty of Law



Kevin Brand Associate Professor Telfer School of Management



Roberto Chica Assistant Professor Department of Chemistry Faculty of Science



Monica Gattinger Associate Professor School of Political Studies Faculty of Social Sciences



Elizabeth Judge Associate Professor Common Law Section Faculty of Law





Eda Kranakis
Full Professor
Department of History
Faculty of Arts



<u>Daniel Lane</u>
Full Professor
Coordinator for the OMIS Section
Telfer School of Management



Rocci Luppicini
Associate Professor
Department of Communication
Faculty of Arts



Catherine Mavriplis
Associate Professor
Department of Mechanical Engineering
Faculty of Engineering



Kevin Orr
Associate Professor
Department of Theatre
Faculty of Arts



Michael Orsini
Associate Professor
School of Political Studies
Faculty of Social Sciences





Andrew Pelling Assistant Professor Department of Physics Faculty of Science



Giuliano Reis Associate Professor Faculty of Education



Mitia Rioux-Beaulne Assistant professor Department of Philosophy Faculty of Arts



Mark B. Salter **Assistant Professor** School of Political Studies Faculty of Social Sciences



Sandra Schillo **Assistant Professor** Telfer School of Management



André Vellino Associate Professor School of Information Studies Faculty of Arts





Michael Wolfson
Canada Research Chair in Population Health
Modelling/Populomics
Faculty of Medicine



Nathan Young
Associate Professor
Department of Sociology
Faculty of Social Sciences



Appendix ID - ISSP Fellows



Peter Calamai Adjunct Research Professor School of Journalism and Communication Carleton University



Heather Douglas Waterloo Chair in Science and Society Associate Professor, Department of Philosophy University of Waterloo Professor, Balsillie School of International Affairs



Paul Dufour Adjunct Professor, ISSP Principal **Paulicyworks**



Kamiel S. Gabriel, MBA, P.Eng, F.C.A.E. ISSP Senior Fellow Professor Faculty of Engineering and Applied Science University of Ontario Institute of Technology



Richard W. Hawkins Canada Research Chair Science, Technology and Innovation Policy University of Calgary





Andrew Hessel
Autodesk Distinguished Researcher
Autodesk
Co-chair of Biotechnology and Bioinformatics
Singularity University
Co-founder
Pink Army Cooperative



<u>Jeff Kinder</u> Manager, S&T Strategy Natural Resources Canada



Margaret McCuaig-Johnston
ISSP Senior Fellow
International Relations Executive



Gregor Wolbring
Assistant Professor
Faculty of Medicine
University of Calgary





The Institute for Science, Society and Policy

The Institute for Science, Society and Policy offers a unique, holistic and non-partisan approach to understanding the social implications of science and technology. We're interested in how to use these different perspectives to inform science and technology policy.

Centered at the University of Ottawa, the ISSP carries out research, teaching and public outreach on the relationship between society and science, innovation and technology.

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