Welcome to the second edition of the CAIAC Herald! / Bienvenue à la deuxième édition du CAIAC Herald!

The purpose of this publication is to keep you informed of the new developments at CAIAC and in the Canadian AI community. In addition, each edition features an interview with an eminent member of our community. In this issue, our guest of honour is Guy Lapalme of the University of Montreal.

Featured Articles

- Interview with Guy Lapalme
- Report on Canadian AI by Canadian AI'2014 co-chairs, Marina Sokolova and Peter Van Beek
- Announcements including the 2014 CAIAC award winners, the Canadian AI team for next year's conference, a list of new developments at CAIAC along with planned ones.
- Community advertising section
- Upcoming events.

For more information about CAIAC, please visit our Website at: https://www.caiac.ca/

Interview with Guy Lapalme / Entrevue avec Guy Lapalme

Winner of the Canadian AI Association (CAIAC), 2011 Lifetime Achievement Award

CAIAC:
What is, in your opinion, the most important development in Artificial Intelligence that took place in recent years or is in the process of taking place?

Guy Lapalme:
If I limit myself to the Natural Language Processing area in which I am more knowledgeable, I would say that it is the availability of massive textual data on the Web that enables the development of new methods for dealing with it. For many years, getting hold of textual data or dictionaries was very expensive and complicated, but now with the Web (and the semantic Web...) availability is much less a problem. Of course, getting data of good (or even acceptable) quality is still a complicated process but with the new means of cooperation that the Web also allows (e.g. wikipedia and wiktionary), it is at least doable.

CAIAC:
Why do you believe it is a significant development and what is its scope. Could you compare its projected impact to the impact that earlier advances in AI have had?

Guy Lapalme:

It now possible to study the language as it is used by people and not only theoretical linguistic abstractions as defined by grammars and established dictionaries even though they are still an important source of data. This "big data" enabled the development of statistical approaches that need plenty of data from which to extract regularities. Before that, developers had to imagine the way people would interact with the machine, so systems were often brittle on seemingly simple tasks. It is now possible to deal with most "real-world" variations of a single utterance.

CAIAC:

How do you believe that this new development will change our everyday lives?

Guy Lapalme:

It is leading to the "commoditization" of AI. People are now taking for granted the solution of many hard problems in AI, such as the following: they talk to "their phone" and expect that it answers sensibly and even carry out conversations; they type a few words to a search engine and they expect that it understands what they intended to search; translating a text to another language is just a matter of sending it to a Web service. All these tasks have been considered as very hard AI problems for many years, they are not fully solved but at least some "good enough" solutions are being provided thanks to the availability of massive textual data. One must also acknowledge that people are also learning how to use these systems efficiently by talking "slowly" to their phone, simplifying their query or making sense of sometimes bad machine translation outputs.

CAIAC:

What part has Canada played or is currently playing in this new development?

Guy Lapalme:

The fact that Canada is a bilingual country provides the opportunity of creating many bilingual resources (e.g. Canadian Hansards, bilingual weather reports and warnings, bilingual Web sites) and thus created a strong translation industry and associated research in many labs across the country. Speech technologies are also very strong because of the strong linguistic tradition that enabled the Language Industry to prosper. The fact that Québec had to fight to keep its French language strong also enabled the creation of a strong industry of French grammar checkers and writing assistance that are now used all over the world.

Biography:

Guy Lapalme is a Professor of Computer Science at the Université de Montréal, where he has been a faculty member since 1980. Guy was one of the first researchers in Canada to work in logic programming applied to natural language processing, and he has since become one of the world's leading experts on a broad range of topics in natural language processing, including spelling correction, dictionary editing, text generation and translation. For his contributions to the field of natural language processing, he was awarded an honorary doctorate from the University of Neuchâtel (Switzerland) in 2010.

Canadian AI'2014 Report / Rapport sur la conference du Canadian AI 2014

By Marina Sokolova and Peter Van Beek

The 27th Canadian Conference on Artificial Intelligence (AI 2014) was held in Montréal, Québec, Canada, May 6-9, 2014, and was collocated with the 40th Graphics Interface Conference (GI 2014) and the 11th Conference on Computer and Robot Vision (CRV 2014). Speaking as the program co-chairs, the conference was a great success. There were outstanding invited talks, tutorials, and contributed scientific and industrial papers, as well as excellent conference facilities and an enjoyable social program. And all held within one of the world's great cities!

AI 2014 attracted 94 submissions from 28 countries. Each submission was thoroughly reviewed by the Program Committee and additional reviewers, and for the final conference program and for inclusion in the proceedings, 22 regular papers were accepted, for an acceptance rate of 23.4%, and 18 short papers were accepted. Authors of both long and short papers gave oral presentations of their work at the conference. The

accepted papers were collected into a volume and published in the Springer Lecture Notes in Artificial Intelligence Series (LNAI 8436).

Two best paper awards were given out at the conference. A best paper award was presented to Michael Guerzhoy and Aaron Hertzmann for their paper entitled "Learning Latent Factor Models of Travel Data for Travel Prediction and Analysis" and a best application paper award was presented to Ary Fagundes Bressane Neto, Phillipe Desaulniers, Pablo Duboue, and Alexis Smirnov for their paper entitled "Filtering Personal Queries from Mixed-use Query Logs." These papers were judged by us (the program co-chairs) to be the two best papers from among all 94 submissions.

In addition to topics where the conference has always been strong in the past-such as knowledge representation, text, AI applications, and machine learning-several new trends could also be identified in the accepted papers. One trend was a burst of papers on geospatial topics (including one of the best paper award winners of the conference). Broadly speaking, these geospatial paper use artificial intelligence techniques to infer, for example, maps, trajectories, and travel patterns from GPS and other travel data. Another trend was a burst of papers on biomedical and bioinformatics topics ranging from machine learning for medical systemic reviews to intelligent user interfaces in healthcare and more. As with the papers on geospatial topics, enough papers were accepted (five each) to organize sessions devoted entirely to these topics. A final trend is that several strong papers were accepted on privacy preservation in machine learning and data mining.

We invited four distinguished researchers to provide their insights on the state-of-art in Artificial Intelligence:
Doina Precup, McGill University, and Yoshua Bengio, Université de Montréal, gave the invited tutorial talks and Stan Matwin, Dalhousie University, and Khaled El Emam, University of Ottawa and Privacy Analytics Inc., gave the invited conference talks. As well, Hootan Nakhost, University of Alberta, gave the PhD award talk entitled "Random Walk Planning: Theory, Practice, and Application."
The AI 2014 program greatly benefited from these exceptional contributions.
The inclusion of invited tutorials was a new feature of the conference this year. The invited tutorials were a great success and we thank Rob Holte and Nathalie Japkowicz for suggesting the idea.

The organization of such a successful conference benefited from the collaboration of many individuals. We would like to thank the members of the Program Committee and external reviewers for providing significant and timely reviews.
To manage the submission and reviewing process, we used the EasyChair Conference system. We thank Aminul Islam, Cristina Manfredotti, Shamima Mithun for organizing and chairing the Graduate Student Symposium and its Program Committee. We express our appreciation to Alain Désilets for organizing and chairing the Industry Track session. We would like to take this opportunity to thank Atefeh Farzindar, the AI/GI/CRV General Chair, Local Arrangement Chairs Philippe Langlais and Guillaume-Alexandre Bilodeau, and Michel Gagnon, Local AI contact for handling the local arrangements and registration.

AI 2014 was sponsored by the Canadian Artificial Intelligence Association (CAIAC). We thank Nathalie Japkowicz and the members of the CAIAC Executive Committee for all their efforts in making AI 2014 a successful conference.

We also thank the CAIAC Executive Committee for inviting us to be program co-chairs. It was a wonderful honour to serve in this role. For both of us, the Canadian AI conference has always had a special place. One of us (Peter) gave his first conference talk ever many years ago (1986) at the Sixth Canadian AI Conference, which was also held in Montréal.

CAIAC Award Recipients / Récipiendaires des recompenses du CAIAC

It was our pleasure to award two prizes to deserving graduates of an AI program in a Canadian Institution. This year's recipient of CAIAC's Doctoral Dissertation Award was Hootan Nakhost, University of Alberta, (advisor: Martin Mueller, title of the thesis: "Random Walk Planning: Theory, Practice, and Application."). The recipient of the Master's thesis award was Eric Laufer, University of Montreal (advisor: Yoshua Bengio; title of the thesis: Algorithmes d'apprentissage profonds supervisés et non-supervisés applications et résultats théoriques). Congratulations to both laureates!
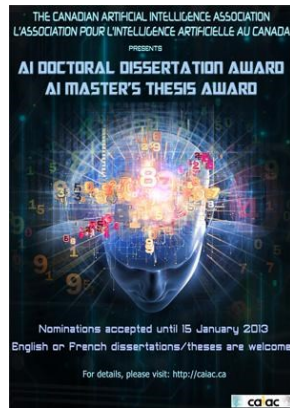
News about Canadian AI'2015/ Information sur le Canadian AI'2015

June 2-5, 2015, Halifax, Nova Scotia, Canada

Preparations for the Canadian AI'2015 conference are under way. The conference will be held at Dalhousie and St. Mary Universities in Halifax, Nova Scotia from June 2-5, 2015. The graduate symposium and other activities will be scheduled on June 1. The conference co-chairs will be Evangelos Milios and Denilson Barbosa. General co-chairs will be Pawan Lingras and Stan Matwin. Graduate Symposium Chair will be former CAIAC president Danny Silver. Thank you to this wonderful team. We look forward to seeing you all in Halifax!

New at CAIAC /Quoi de Neuf a CAIAC?

Visit our Website: www.caiac.ca
* A Science Daily Newsfeed for AI has been added to our website. Keep up on the latest AI news!
* Check out the new list of AI experts in Canada that are also CAIAC members. (Sorry, non-members don't make the list! So become a member now!) Click on:
   https://www.caiac.ca/en/ai-expert-directory
to check it out and feel free to add your own entry.
* Check out our career webpage: https://www.caiac.ca/en/job-posting-ai Members can advertise AI jobs on the website. There is a free trial membership for AI industry members who would like to benefit from this service. Please, contact *secretary@caiac.ca* to find out more about this offer. Academic as well as industry jobs are welcome.

Upcoming Events / Évènements à venir

- ✓ Canadian AI Conference June 2-5, 2015
- ✓ Graduate Symposium
- ✓ Dissertations and Masters' award competition
- ✓ Distinguished Award nomination
- ✓ CAIAC Executive Elections 2015-2017

New Feature at Canadian AI:
This year we will be trying something new at Canadian AI. A small proportion of top quality papers will be invited for an expanded submission to a special issue of the *Computational Intelligence Journal*.

In an effort to spread the knowledge and interest in AI to the wider community, CAIAC will be sponsoring a prize of $500 for best project at the Canada Wide Science Fair for senior high school students.

Expanding communication within the Canadian AI Community:

We are starting a mailing list (which just needs to be activated, so look out for a message from this list coming soon to a mailbox near you). The name of the mailing list is **caiac@lists.dnlp.ca**. To register, please send a simple "subscribe" message to: **caiac+subscribe@lists.dnlp.ca** or wait for our invitation (all CAIAC members will be invited to subscribe to this list, although there will also be an option to de-register, using a link at the bottom of the message. Please feel free to post your ads and announcements to that list.

Newsletter

We also decided to use this newsletter for ads / announcements (jobs, workshops, books, conferences, etc.) for the time being. Please check our next category of items for our first ad.

Community Announcements:

Call for Book Chapters

Upcoming Book: "Recent Advances on Computational Intelligence in Defense and Security"
To be published in: Springer's Studies in Computational Intelligence Series.
Website: http://www.ieeeottawa.ca/ci/cids-book/
Abstract submission deadline: October 30, 2014
Volume Co-Editors: Rami Abielmona, Larus Technologies Corporation, Canada; Rafael Falcon, Larus Technologies Corporation, Canada; Nur Zincir-Heywood, Dalhousie University, Canada; Hussein Abbass, Australian Defense Force Academy, Australia.

Call for Nominations

2015 is an election year for all CAIAC executive positions (president, vice-president, secretary and treasurer). We hereby invite all members who wish to make additional nominations to do so by 10 April 2015 via e-mail to the current Secretary of CAIAC, *Ziad Kobti <secretary@caiac.ca>*

CAIAC's Executive Committee
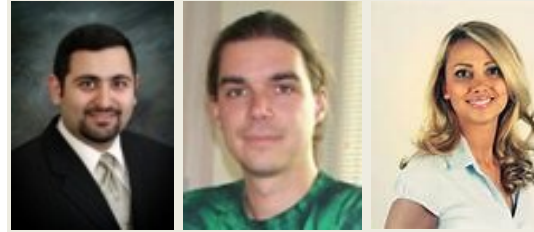
CAIAC's executive committee is composed of five members plus one liaison member. Here is who we are:

President: Nathalie Japkowicz, University of Ottawa (president@caiac.ca)

Vice-President: Cory Butz, University of Regina; (vp@caiac.ca)

Treasurer: Malek Mouhoub, University of Regina; (treasurer@caiac.ca)

Secretary: Ziad Kobti, University of Windsor; (secretary@caiac.ca)

Past President: Holger Hoos, University of British Columbia

Industry Liaison: Atefeh Farzindar, NLP Technologies

Our purpose is to organize and sponsor a number of events. In particular, we are responsible for the Canadian AI Conference, the Graduate Symposium, Dissertations and Master's Thesis awards, the Lifetime Achievement Award, and the Distinguished Service Award. We also plan new activities and services for the AI community in Canada. We operate by holding monthly (or more frequent, when needed) Skype meetings to set up events and discuss new projects. The role of the president and vice president is to oversee the proper operation of the organization. The treasurer manages CAIAC's finances and the secretary records all internal and external communications and manages the website. The industrial liaison officer gives us advice on how to better serve the AI industry community and helps us reach out to that community. If you have ideas about how to improve the services provided by CAIAC, please do not hesitate to contact us at the e-mail addresses provided above. We welcome your comments and suggestions!