

Women@GECCO 2014

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1. WORKSHOP OVERVIEW

Women form an under-represented cohort in evolutionary computation, whether the cohort is examined in industry, academics or both. This situation is reflective of a larger scale demographic divide in computer science and STEM¹ in general. It prompts many pressing questions:

- How will industry's need for evolutionary technology expertise be filled without more equal representation?
- How can women be encouraged to enter the field of evolutionary computation?
- What will help women in evolutionary computation remain in the field long term?
- What different challenges along a career path affect persistence in the field?
- What strategies will help women navigate career and family responsibilities?
- What helpful changes can be adopted by women as a group, by our larger community with respect to our conferences and awards, or by our academic institutions with respect to positions and promotions?
- Is mentoring welcome and helpful?
- How can we promote evolutionary computation to women choosing graduate degrees?

¹STEM is an (American) acronym that stands for Science, Technology, Engineering and Mathematics

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- How can we efficiently disseminate evolutionary computation information to pre-college girls?
- Are there experiences and strategies that can be shared which allow senior women to support more junior ones or peers to support each other?
- Every women's experience is different and shaped by cultural, society, institutional and personal influences. Are there ways to support across these differences?
- Often, participation numbers are such that a woman can feel quite isolated. What can other women do to help?
- Would a network of women in evolutionary computation which promotes women's contributions to the field by means of a technical meeting be helpful?

The grand objective of this workshop is bring women attending GECCO together to share ways that will generate, encourage and support academic, professional and social opportunities for women in evolutionary computation.

2013 Recap

The first meeting of Women@GECCO took place in 2013 in Amsterdam. It was informally organized in very short time, only 6 weeks prior to the conference. Its "ring leaders" used the internet, email lists and manual labor to advertise the event and raise interest and participation. Prior to the meeting, these organizers reached out at the conference to advertise the event by word of mouth. Approximately 40 women attended the meeting and approximately a dozen more stated they would have liked to attend but were unable to attend GECCO or the meeting itself due to schedule conflicts. This is a very high percentage of the women at GECCO that day. We printed bright pink T-shirts with the GECCO logo and a humorous graphic and distributed them at the meeting. We shared extras with our children and GECCO organizers afterwards. We are grateful to the GECCO conference and SIGEVO for their support of this initial effort and funding for the t-shirts.

We prepared topics for the meeting's discussions beforehand. One particular focus driving the group's formation was the under-representation of women and what actions could remediate it. Options put forth included:

- high school outreach: Participants who had reached out reported that these events are very rewarding. It is fairly easy to explain EC and communicate why it is

compelling. Currently, if outreach occurs, it is driven from the bottom up, i.e. from individual relationships between an EC researcher and a local secondary school. This seems to be both practical and adequate. We recognized that there is an abundance of internet resources plus the resources prepared by individual, isolated efforts. The outstanding question is whether it is worthwhile to aggregate them and keep the compilation up to date. This would require something like a Women@GECCO website.

- addressing loss in participation after graduation and in later career: Loss often is due to parenthood or “two body” constraints that limit options. In this context, the idea of a panel at GECCO in 2014 was put forward by Carola Doerr. She and Anne Auger offered to organize a panel on work life balance strategies in Vancouver. The panel will go forward in 2014 and include men and women at different points in the evolutionary computation careers. Efforts have been made to compose the panel to be diverse in multiple respects. Forum speakers will discuss the following questions:

- What are tips to ease a good work and life balance?
- (How) Is it possible to have a scientific career while working on a part-time basis?
- How does having a family change the priorities between private life and research ambitions?
- Is it more difficult for women to pursue a research career in EC? Or is it rather, independently of the gender, difficult per se to combine ambitious career plans (in academia or industry) with a satisfying private life?
- What can the community do to support academics (and in particular young women) with families?

Confirmed panel members are

- Emma Hart, Director of Centre for Emergent Computing, Edinburgh Napier University, UK
- Gabriela Ochoa, Lecturer at University of Stirling, UK
- Una-May O’Reilly, Leader of the AnyScale Learning for All research group and Principal Research Scientist at the Computer Science and Artificial Intelligence Laboratory, MIT, USA
- Katya Rodríguez, Investigadora Titular A, Universidad Nacional Autónoma de México
- Marc Schoenauer, Scientific Head of Inria Saclay-Ile-de-France, France
- Nur Zincir-Heywood, Professor, Dalhousie University, Canada
- providing mentorship: Mentorship appears to be needed in a variety of matters. These include life-work balance, grant writing and technical areas. It is useful during early developments stages ranging from graduate student to junior faculty. This became an outstanding action item.

- general fellowship: Forming a network was also recognized as important. Everyone enthusiastically embraced the meeting and felt it would help to hold it regularly. To that end, we decided to formalize the event as a workshop at GECCO and hold it annually, in some form, as long as the concept remains fresh, practical and welcome.
- intellectual fellowship: The Women in Machine Learning group runs an annual technical full day workshop co-located with the NIPS conference. They solicit abstracts of 500 words, hold poster and presentation sessions and feature distinguished guest speakers. They raise funds for travel grants to the workshop to enable attendance. We were inspired by this example and will consider how to work toward something similar. As a start, in 2014, this activity will fall into the purview of the Women@GECCO workshop.
- an organization dedicated to this cause: We decided to proceed under the umbrella of some sort of organization or society that would allow women in evolutionary computation who meet at GECCO to feel more united throughout the year. Thus, we elected officers: a chair, vice-chair and secretary - respectively Una-May O’Reilly (MIT, USA), Anna Esparcia (SU Grupo, Spain) and Gabriela Ochoa (Stirling U., Scotland).

2014 Preview

To further diversity, we composed the 2014 solicitation to attract students, academics at different career points, and professionals. Like 2013, in 2014 we are using the workshop to acquaint ourselves informally. No manuscript is required to attend. We have asked for proposals to introduce any relevant topic and lead a short group discussion. We hope this will support fair representation. We will be sharing general discussions, exchanging introductions and brainstorming. We will look at the (very quickly developed) goals set at the 2013 meeting and strategize how to advance them further, given their supporting activities since then. We will put forward the topics that were solicited from all participants ahead of time. After topics are introduced, we will run breakout discussions on them in which meeting participants will participate. The workshop’s final activity will be the work-life balance panel.

Acknowledgments

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