## **UC Merced**

**Proceedings of the Annual Meeting of the Cognitive Science Society** 

## Title

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## Permalink

https://escholarship.org/uc/item/9qd7k6qg

## Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 41(0)

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## **Publication Date**

2019

Peer reviewed

#### Beyond the Ivory Tower: Non-Academic Career Paths for Cognitive Scientists

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**Keywords:** professional development; non-academic; careers; industry; non-profit; government

#### **Objectives and Scope**

Cognitive science research has far-reaching implications, but many graduate students are trained with only an academic career in mind. Academic training develops a wide range of skills in service of behavioral research, literature reviewing, data analysis, scientific publishing, grant writing, teaching, and student mentorship. These skills also have direct application in non-academic positions, but training within academia typically neglects to address how these skills translate to other work environments and career paths. As growth in the number of doctoral trainees continues to outpace permanent academic positions (Kolata, 2016; Larson, Ghaffarzadegan, & Xue, 2013; Lederman, 2016), more doctoral recipients have been seeking non-academic employment (National Science Board, 2018). Doctoral students and recipients who are interested in exploring nonacademic employment options may not know where to turn for guidance. Our goal in this professional development workshop is to offer such guidance and an opportunity to network with scholars in similar situations.

The session will be led by two scholars with doctoral degrees in psychology who worked in academic positions previous to their industry careers: Carissa Shafto is a senior data scientist and data governance specialist for Brightfield Strategies; Vanessa Simmering is a senior research scientist for ACTNext by ACT, Inc. They will draw on their individual experiences navigating from academic to non-academic positions to guide the activities and discussion. Additionally, they will solicit contributions and participation from other scholars with a diverse range of backgrounds and positions to increase the breadth of experiences participants consider.

#### **Workshop Schedule**

The time for the half-day session will be divided approximately in thirds, beginning with a presentation by the leaders, followed by a set of interactive activities among participants, and closing with group discussion of the activities and questions they raised. Because the workshop will occur before the conference, we hope that participants can use this opportunity to connect with each other and continue the conversations and networking beyond the end of the workshop.

# Part 1: Introduction of Contributing Scholars and Different Career Paths

The leaders will begin with an overview of the goals of the session, followed by a series of narrated slides in which scholars (the leaders plus additional contributors) describe their backgrounds and employment. Specifically, we will ask all contributors to list the discipline of their degree and the general area of their research training, followed by (when relevant) any academic and non-academic positions they held before their current position, then a description of their current job, ending with a comment on what motivated them to seek out a non-academic career. Each contributor's description will be brief (3 minutes or less) and compiled into a single presentation in advance to maximize the number of examples we can present to participants. We have agreements to contribute narrated slides from thirteen participants thus far, listed in Table 1, and will invite more contributors if needed to ensure diverse representation of participants' backgrounds, interests, and employment types. Contributors will be encouraged to attend if possible, but attendance will not be required as this may limit which types of people and careers that can be represented, since many non-academic careers do not require or fund conference travel.

#### **Part 2: Developing Your Pitch**

Participants will be given time to work individually and then in small groups on two related activities developing "elevator pitches", which are brief but persuasive speeches designed to spark the listener's interest to learn more. The first pitch will be focused on what the participant is looking for in a career. The second will focus on what the participant has to offer to an employer. The leaders will scaffold this activity by highlighting successful strategies (e.g., focusing on skills over content, considering opportunities rather than obstacles) and potential individual considerations (e.g., whether one is leaving a temporary versus permanent position, whether relocation is possible). As relevant, these activities may include brainstorming a wide range of potential employment opportunities, or focusing on a specific position the participant already has in mind. During this portion, the leaders and any contributors in attendance will circulate through the room to talk to participants and answer questions that arise.

| Name                | Position                              | Institution / Company / Agency                |
|---------------------|---------------------------------------|---|
| Dan Acheson         | Data Science Manager                  | Uptake  |
| Keith Apfelbaum     | Research Director                     | Foundations in Learning, Inc.                 |
| Aimee Arnoldussen   | Medical Technology Assessment         | University of Wisconsin Hospital & Clinics    |
| Megan C. Brown      | Lead Decision Scientist               | Consumer and Partner Insights, Starbucks      |
| John Lipinski       | Director of Client Management         | Certilytics                                   |
| April Murphy        | Data Scientist                        | Tulco Labs                                    |
| Maggie Renno        | Research Analyst                      | Wisconsin Department of Children and Families |
| Alexa Romberg       | Research Manager                      | Schroeder Institute at Truth Initiative       |
| Sarah Sahni         | Associate in Social & Economic Policy | Abt Associates                                |
| Matthew Schlesinger | Senior Data Scientist                 | ReThink Medical                               |
| Sean Taylor         | Research Scientist Manager            | Core Statistics Team, Facebook                |
| Dan Vatterott       | Data Scientist                        | Showtime                                      |
| Tim Wifall          | Senior User Experience Researcher     | Samsung Research America                      |

Table 1: PhD Scholars Contributing Narrated Slides on their Backgrounds and Careers

#### Part 3: Questions, Feedback, Discussion, Networking, and Resources

Following the activity, participants will have an opportunity to ask questions, seek feedback, and discuss concerns within the larger group. The leaders will structure the time of the final third of the session based on interest from participants, including references to resources participants may want to use as they pursue non-academic careers. For example, a number of consulting services can be found online (The Professor Is In, Cheeky Scientist, Beyond the Professoriate, Next Scientist) but each varies slightly in their scope (i.e., some cater more to "hard" sciences, others to social sciences and humanities) and therefore their potential utility for participants with different backgrounds. They also vary in the amount of information offered free of charge and services provided at a cost. Social media sites (e.g., Post-Academic Athenas, Facebook groups, and LinkedIn) also offer more informal support, through discussion and peer mentoring, and can help participants expand their networks. The leaders and contributors will be able to provide some specific experiences to help participants evaluate what approaches could be of most use to them.

At the conclusion of the event, Dr. Simmering will survey interest from participants in potentially forming a group on LinkedIn or another platform to stay connected and follow up on conversations started during the session. Participants will also be provided with contact information from any contributors who agree to offer this opportunity to connect. We hope the session will give participants an entry point to exploring a wide range of career options and the necessary resources to pursue non-academic career paths.

#### Acknowledgments

Thanks are owed to Alexa Romberg for help in organizing a variant of this workshop submitted to another conference, and to Shevaun Lewis for permission to adapt and use materials she developed for a professional development workshop at the University of Maryland.

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