

Career Paths beyond the Tenure Track for Cognitive Scientists

Vanessa R. Simmering (vanessa.simmering@gmail.com)

Doctrina Consulting, LLC
Madison, WI 53705 USA

Carissa L. Shafto (carissa.shafto@gmail.com)

Brightfield, LLC
New York, NY 10018 USA

Keywords: professional development; non-academic; career paths; industry; non-profit; government

Objectives and Scope

Cognitive science research has far-reaching implications, but many graduate students are trained solely for tenure-track faculty positions. Academic training develops a wide range of skills in behavioral research, literature reviewing, data analysis, scientific publishing, grant writing, teaching, and student mentorship. These skills have direct application in many other careers, 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 et al., 2013; Lederman, 2016), more doctoral recipients have been seeking employment beyond faculty positions and academia (National Science Board, 2018). Those who are interested in exploring alternative career paths 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 the senior director of data and analytics at Brightfield, a SaaS company in the HR analytics space; Vanessa Simmering is a learning scientist and consultant, currently on contract with Illustrative Mathematics. 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 from other scholars with a diverse range of backgrounds and career paths to increase the breadth of experiences that participants will learn about.

Workshop Schedule

The half-day session will be divided in thirds, beginning with a presentation by the leaders, followed by interactive activities among participants, and closing with time for open questions and discussion, with additional presentation by the leaders as relevant. If possible, participants will complete a short survey in advance of the workshop to identify career stage and interests in order to tailor the topics and discussion for the participants. In previous in-person versions of similar workshops, this was done in the first few minutes of the meeting. To accommodate the virtual/hybrid format this year,

online survey capabilities and virtual meeting rooms (e.g., breakout rooms in Zoom) will be used during the session to provide more interaction with participants.

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) to maximize the number of examples included. We have agreements to contribute from seventeen participants thus far, listed in Table 1, and will invite more contributors to ensure diverse representation of backgrounds, interests, and employment types. Contributors will be encouraged to attend if possible, which may be feasible through virtual participation.

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. The intended outcome of this activity is to give participants a structure for determining their career interests and options.

Part 3: Questions, Discussion, and Resources

Following the activity, participants will have time to ask questions, seek feedback, and discuss concerns with the

Table 1: Contributors who have agreed to provide a narrated slide for the workshop

Name	Position	Institution / Company / Agency
Brandon Abbs	Director/Head of Medical Writing	Praxis Precision Medicines
Aimee Arnoldussen	Innovation and Commercialization Specialist, Discovery to Product	University of Wisconsin - Madison
Lewis Baker	Director of Data Science	Pymetrics
Megan Brown	Lead Manager of Data Literacy	Starbucks
Melissa Cervantes	Clinical Research Scientist	Samsung Research America
Manizeh Khan	Product Insights Manager	Spotify
John Lipinski	Vice President of Research and Innovation	Paradigm Personality Labs
Katherine McEldoon	Senior Research Scientist, Learning Research and Design	Pearson
Mariko Moher	Director of Donor Relations and Stewardship, Advancement	Connecticut College
April Murphy	Learning Engineer	Carnegie Learning
Libby Pier	Director of Impact	Education Analytics
Alexa Romberg	Social and Behavioral Scientist Administrator, National Institute on Drug Abuse	National Institutes of Health
Maggie Renno	Research Administrator	Wisconsin Department of Children and Families
Julia Rutledge	Program Director, Learning Analytics Master's Program	University of Wisconsin - Madison
Matthew Schlesinger	Senior Data Scientist	Agari Data
Amanda Siebert-Evenstone	Research Associate Creative Producer, Learning Analytics Master's Program Research Scientist	Nelson Institute for Environmental Studies University of Wisconsin - Madison Siebert-Evenstone Research Consultants, LLC
Tim Wifall	Senior User Experience Researcher	Samsung Research America

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 career paths. For example, a number of consulting services can be found online (e.g., The Professor Is In, Cheeky Scientist, Beyond the Professoriate) 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. These online resources also vary in the amount of information offered free of charge and services provided at a cost. Social media sites offer more informal support, through discussion and peer mentoring, and can help participants expand their networks for no cost. The leaders will describe specific experiences to help participants evaluate what approaches could be of most use to them.

Conclusion

We aim for this workshop to give participants an entry point to explore a wide range of career options and knowledge of the necessary resources to learn more about those options in order to pursue their goals. The experiences our contributors have shared and resources we have collected provide us with relevant advice for scholars in varied stages of their training and career paths with different interests and goals, which allows us to tailor to the workshop participants. Participants will also gain a network of similar scholars with whom they can maintain contact after the workshop.

Acknowledgments

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

References

- Kolata, G. (2016, July 14). So many research scientists, so few openings as professors. *The New York Times*. Retrieved from <https://www.nytimes.com/2016/07/14/upshot/so-many-research-scientists-so-few-openings-as-professors.html>
- Larson, R. C., Ghaffarzadegan, N., & Xue, Y. (2014). Too many PhD graduates or too few academic job openings: the basic reproductive number R_0 in academia. *Systems Research and Behavioral Science*, 31(6), 745-750.
- Lederman, D. (2016, December 9). The new Ph.D.s. *Inside Higher Education*. Retrieved from <https://www.insidehighered.com/news/2016/12/09/phd-recipients-increase-number-job-prospects-vary-new-us-data-show>
- National Science Board. (2018). Academic Research and Development. In *Science & Engineering Indicators 2018*. National Science Foundation: Arlington, VA. Retrieved from <https://nsf.gov/statistics/2018/nsb20181/report/sections/academic-research-and-development/doctors-scientists-and-engineers-in-academia>