The Women in AMIA
UPDATE

Monthly E-Newsletter

A CONVERSATION WITH AMIA DOCTORAL DISSERTATION AWARD WINNERS

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   Previous issues of the WIA newsletter can be found on the Women in AMIA webpage <u>here</u>.

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A Conversation with Past AMIA Doctoral Dissertation Award Winners

Rimma Perotte, PhD
ADDA Winner, 2017

Bethany Percha, PhD
ADDA Winner, 2018

WIA: *What is your current position and title?*

Rimma: I am the Director of Biomedical Informatics for the Emergency Medicine Department at Hackensack University Medical Center. I am also a lecturer in the Department of Biomedical Informatics at Columbia University.

Bethany: I'm an Assistant Professor of Medicine at the Icahn School of Medicine at Mount Sinai.

WIA: *What were some of the most challenging aspects of putting together your dissertation and how did you overcome them?*

Bethany: The dissertation is really a chance to tell the story of your PhD: your perspective when you started, how your thinking evolved, and how those changes impacted your research. If you want that to happen, however, you can't just staple papers together – you have to do some rewriting and reorganizing. That can be daunting when you're working on such a long document.

What really worked for me was to start with the structure. Don't put any text in for a while. Just write the chapter and section titles and then add all the easy structural things, like figures, tables, lists, boxes, references, etc. Once you get all that in, you might be surprised to discover that you already have a 50-page document going. That will give you the confidence to keep working, and you can begin to add the text from your existing papers and write chapter introductions that will tie everything together.

Rimma: I feel like the beginning and the end of the dissertation are always the hardest. The beginning revolves around lots of classes, deciding on a topic, a scope, and an advisor. It always feels overwhelming to decide what you will study for so many years. The way I overcame the difficult beginning stages was picking the right advisor (which, I firmly believe is the most important decision that any PhD student makes). I found a fantastic advisor in Dr. Noémie Elhadad. Dr. Elhadad always made me feel comfortable in our discussions and in retrospect, this collegiality was critical for scientific exploration and expression.

The end is so difficult because you suddenly have to tie a perfect bow around everything: completing your experiments, writing up five years of findings, finding a job, and trying to publish as much as you can before you leave. It is always hard to find the boundaries of when you are "done," as you can always run a few more experiments and find a few more insights. I think that having a strong connection with your fellow students can help with many of these anxieties; when you are all going through the same thing it often feels much more doable.

WIA: *How has winning the AMIA Doctoral Dissertation Award impacted your career?*

Rimma: Winning the AMIA Doctoral Dissertation award has been so humbling! It has certainly increased the visibility of my work and more broadly my recognition in the field. I feel very honored by the award and by the fact that it has given me the opportunity to meet and discuss my research with leaders in the field.

The award has also increased my confidence as both a researcher and mentor. It even gave me the self-assurance to propose and teach a new class in Columbia's Biomedical Informatics department, which I have been really enjoying.

Bethany: More than anything, having such a tangible expression of support from established figures in the field has given me increased confidence in how I approach research and a willingness to take more risks.

WIA: *What do you find most exciting about your current work and/or about the field of biomedical informatics in general?*

Bethany: It's an exciting time to be in the field because we're moving toward a much broader use of data in health systems and more engagement between physicians and healthcare operations folks and data scientists. There's a recognition on all sides that we need to find ways to mobilize data quickly to answer questions and make decisions in real time within a health system.

The thing I'm most excited about in my job right now is a new data science course I'm teaching for the Department of Medicine fellows. They are all practicing MDs who are excited about data and who have ideas about how to use it in their own work. Personally, I look forward to the day that informatics is no longer considered a separate field because everyone involved in healthcare can confidently speak the language of data and evidence.

A Conversation with Past AMIA Doctoral Dissertation Award Winners (cont'd.)

Rimma: I think it is so exciting to apply the informatics that I learned through my formal training and through my many AMIA conferences to impact large-scale applied problems in clinical settings. I really appreciate the work I am able to do by being a part of a clinical department. My department chair, Dr. Joseph Underwood III, has been very vocal about having informatics as a core part of the department, right alongside quality, operations, research, finance, and education. This informatics integration into all parts of the department gives me a lot of opportunity to creatively apply informatics techniques to a wide-ranging set of problems from clinical to patient safety to operations to training.

WIA: *Do you have any words of advice for biomedical informaticians starting out in their careers?*

Rimma: Welcome to our wonderful field! The beauty of biomedical informatics is that the path to the field is so frequently non-linear and so many people come to it from different places. It gives informatics the benefit of varied perspectives and diversity. Also, I have always found it to be a very kind discipline. Informatics is full of curious people who are happy to form not just collaborations but also long-lasting relationships.

Despite the size and diversity of the AMIA community, it has always felt like a small-knit community that is thrilled to welcome new members. It is such a wonderful thing that conferences don't feel like networking events, but rather like an opportunity to meet new people and spend time with friends while hearing about what informatics insights they have uncovered in the last year.

My advice would be that regardless of your personal area of interest, develop a respect and interest in learning about the many sub-areas of informatics. The truth is, all the areas are interconnected and most often the novel ideas lie in the interconnections.

Bethany: I think it's important to introduce an element of spontaneity, or inspiration, into one's life and career. You can't always be "on a path" – sometimes you just have to do something because it excites you or follow an opportunity just to see where it will lead. The times when I've done this have led to some of the most important and memorable twists and turns of my career, such as taking a leave of absence from my PhD to join a startup or joining a new applied research institute at Mount Sinai instead of pursuing a more traditional academic position. Those have also been the experiences that have taught me the most about myself and helped me clarify the bigger picture of what I want to accomplish.

WIA: *How is this pandemic affecting you professionally (and personally if you'd like to share)?*

Bethany: When Mount Sinai's COVID-19 case counts skyrocketed in March, I began modeling our data to provide admissions and census forecasts to health system leadership. That work has followed me into the fall and has been some of the most rewarding I've ever done.

A Conversation with Past AMIA Doctoral Dissertation Award Winners (cont'd.)

Bethany (cont'd.): On a personal note, my husband is British and lives in London, and both he and I have flown back and forth across the Atlantic multiple times over the past several months. It's been pretty surreal. Seeing huge airports like JFK and Heathrow nearly deserted has really driven home for me the magnitude of the impact the pandemic has had on our society.

Rimma: Professionally, COVID-19 really gave informatics a chance to shine. Suddenly, everyone wanted precise data, and fast. Every decision had to be data-driven and the power of informatics was self-evident. It also created a very tight real-time collaboration between the hospital operations team and informaticians which gave us many opportunities to solve issues (even some data quality issues) at lightning speed. It felt like a huge privilege that I was able to use informatics to help during this crisis.

Personally, I have been extraordinarily lucky to be on maternity leave for most of the pandemic. Concentrating on getting a new tiny human to eat and sleep really helps divert one's attention from a worldwide pandemic.

WIA: *What is something about you that you'd like to share that most people don't know about?*

Rimma: My hair started going gray very early! The first time I colored my hair was for prom. But after over a decade of coloring, I gave up on pretending to have brown hair and have been enjoying my naturally silver hair.

Bethany: I got into the field of data science/informatics because of a conversation I had with my father about clinical trials. My brother suffers from post-traumatic epilepsy, and he was prescribed a drug to control his seizures that – it turned out – had never been tested in brain injured people. I couldn't believe how difficult it was to uncover the true state of evidence around this drug, and I also couldn't believe that a physician could prescribe something for which there was no evidential basis (that's how naïve I was at the time). That got me interested in how to make the clinical research literature more accessible to the public, and it was ultimately what sparked my interest in natural language processing, which became the focus of my dissertation.

HIGHLIGHT ON WOMEN LEADERS

Rachael Howe, MS, BSN, RN   Tiffany Harman, BSN, RN

Leadership Positions: Rachael – Clinical Informatics Manager; Tiffany – Business Development Manager. We're both with the Clinical Terminologies department in 3M Health Information Systems (HIS), a healthcare division of the 3M Company.

What we're excited about: We both started working on the 3M Healthcare Data Dictionary (HDD), a clinical terminology management application, in 2010 as subject matter experts with backgrounds in nursing. 3M has been a great company to work for and we love the support they provide for leadership, diversity and inclusion. We have had great mentors and feel fortunate that our company supports the growth of its employees, understands the importance of women in leadership roles and focuses so diligently on inclusion as a community. Since starting the Women in AMIA Leadership Program, Rachael has taken on a managerial role for the HDD team and is excited to stretch the team's limits, helping team members grow as individuals and support each other in this challenging time. Tiffany advanced into business development and is excited about educating 3M customers on the importance of using standardized data for interoperability and analytics.

3M supported and sponsored the Women in AMIA Leadership Program because they value women leaders in the company. We feel blessed to have gotten the opportunity to participate in this wonderful program. It has been an incredible journey to meet an inspiring group of women with the same goals and values. Our plan is to continue to support future women leaders both at 3M and at AMIA. We believe that women contribute unique perspectives and experiences to the informatics field. There are many women out there afraid to try, lacking confidence in their abilities, or even just unsure where to start. Others face bias and frustration daily and feel isolated and unappreciated. We want to help develop their strengths and skills to advance in their career and in the field of informatics, leveraging what we've learned from the Women in AMIA Leadership Program. This program has taught us leadership skills and provided us a safe space to explore and bounce ideas off others, and we would be honored to "pay it forward" to the next generation of women leaders.

Drop us a line!

Women in AMIA would love to hear from you about what's working, what's not and what to feature in future editions of the newsletter. We also have some questions for you: How are you dealing with COVID-19? In these trying times, how are you focusing on the positive?

Please email us at:
AMIA-2020womeninamiasteeringcommittee@ConnectedCommunity.org

WIAPODCAST

The Women in AMIA Podcast showcases talented women at all career stages to reveal the limitless world of biomedical and health informatics professions, and the unique challenges women face pursuing S.T.E.M. careers.

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Have an idea or want to be apart of the team?
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