

(last updated August 2024)

## **STRATEGIC INITIATIVE E. Developing Warner doctoral students' capacity to engage in LiDA initiatives**

### **BRIEF DESCRIPTION - FROM THE 2019 LiDA STRATEGIC PLAN:**

As a way to multiply our future impact, we want to prepare the next generation of education researchers and innovative leaders working on LiDA-related topics; our doctoral students are uniquely positioned to play these roles – but will require specialized training in order to develop the needed skills and mindsets. Developing interested Warner doctoral students' interest and capacity to do work in LiDA will also increase our internal capacity to undertake LiDA projects (Goals #1 and #5), enrich our LiDA Community (Goal #4), and increase our visibility once they graduate, as they can become our ambassadors in their new positions (Goal #3).

(NOTE: hereafter, \* indicates LiDA staff, and \*\* indicates any other LiDA Community members, including LiDA affiliated faculty)

### **Our vision**

At the LiDA Center, we want to prepare the next generation of education researchers and innovative technology leaders through a multi-pronged system of opportunities that leverage our expertise and build the capacity of our doctoral students to do LiDA-related work.

As the LiDA Center was forming, this vision was initially operationalized into several possible "portals" - or access points, programs, activities, etc. - through which students might gain access to experiences and learning to build their capacity to engage in LiDA initiatives. [This chart](#) outlined seven portals that were considered at that time: LiDA social media, LiDA social connections, LiDA colloquium series, LiDA's annotated bibliography project, LiDA scholarly apprenticeship, LiDA meta-seminars, LiDA student masterminds. While not all of these have been realized, some have been fully developed and led to valuable results. This list serves as a touchstone for our ongoing work in this initiative.

There have been a variety of ways that LiDA has worked to achieve this vision to date, as outlined in this rest of this progress report:

- Developing and promoting courses and advanced certificates to gain specific "technical" expertise
- Offering non-credit-bearing LiDA learning opportunities open to all Warner doc students
- Providing learning opportunities through research apprenticeships and research assistantships
- Promoting and supporting dissertations on LiDA topics

### **Developing and promoting courses and advanced certificates to gain specific "technical" expertise**

Coursework provides a key mechanism for building the capacity of doctoral students to contribute to LiDA initiatives – both during their program and after graduation. Our LiDA-focused courses provide students with theoretical grounding and practical technical expertise in conducting research or designing instruction in digitally-rich contexts. While we iterate these offerings in response to changing technologies and educational realities, and

we continue to look for ways to better prepare the next generation of LiDA-focused educators and researchers, the following courses and Advanced Certificates highlight the kinds of course-based training offered to Warner doctoral students:

- \*Lammers created a course on **“Learning in the Digital Age”**, open to anyone interested, that was offered regularly until she left the Warner School.
- \*Lammers created and has twice offered a **course on research methods to study online spaces** open to advanced doctoral students
- **Mini-courses on video production and editing for educational research** have been designed and offered a few times by \*\*Kristana Textor
- We have encouraged all doctoral students to consider completing our **Advanced Certificate in Online Teaching** - or at the very least take the first course in the series, **EDE484: Online Teaching and Learning** - as a way to prepare them for future faculty positions that increasingly expect the ability to teach online.
- \*Borasi participated in conversations with the Goergen Institute for Data Science as they were deliberating whether and how to develop a new **Advanced Certificate in Data Science**, and argued for the importance of making this certificate open to doctoral students in other programs across the UR. To date, 4 LiDA doctoral students have been enrolled in this Advanced certificate (\*\*Erqian Xu, \*\*Qinqin Xiao, \*\*Yunfan Gong, \*\*Yamin Zheng), and two of them (\*\*Erqian Xu and \*\*Qinqin Xiao) also completed the entire master program in Data Science.
- Six of our doctoral students (\*\*Xu, \*\*Xiao, \*\*Gong, \*\*Zheng, \*\*Rashid and \*\*Gama) were also accepted in a special training program in AR/VR funded by an NSF grant, and four of them (\*\*Xu, \*\*Xiao, \*\*Zheng and \*\*Gama) were also awarded a prestigious \$34,000 fellowship for a year to pursue these additional studies.
- \*Borasi was invited to be part of a university-wide committee working towards proposing a new Ph.D. in Data Science, which could have “tracks” for students specializing in educational applications.

### **Non-credit-bearing LiDA initiatives for Warner doctoral students**

We have also experimented with a few other non-credit bearing activities open to Warner doctoral students on a voluntary basis:

- Doctoral students have always been invited to attend our LiDA Colloquium Series - although moving forward we are planning to be more proactively and purposeful with these invitations
- In 2019-2020, a group of doctoral students, in collaboration with the Warner librarian, Eileen Daly-Boas, started a collective annotated bibliography (using the software Zotero) to identify and organize publications relevant to studying learning in the digital age, leveraging the literature reviews individual doctoral students are doing for their dissertations
- We have also established a liaison (\*Borys) with the newly established [Warner's Doctoral Student Peer Support Association \(DSPSA\)](#) (a self-organized student group for Warner doctoral students) to explore and capitalize on possible opportunities for collaboration.

### **Providing learning opportunities through research apprenticeships and research assistantships**

Perhaps the best way to develop doctoral students' research skills, mindsets and practices, is to participate in an “apprentice” role in established research projects - so we have been proactive in providing these opportunities for as many interested Warner doctoral students

as possible. Here is a list of selected LiDA projects that have provided valuable apprenticeship opportunities for doctoral students so far:

- **Future of Work projects:** The NSF-funded Future of Work planning grant, funded research grant, as well as the internally-funded UR Future of Work Capacity Building project have provided paid assistantship for some of our doctoral students, as well as the site for research apprenticeships for four other Warner doctoral students – providing unique opportunities to learn about the process of putting together a complex grant proposal as well as how to work in an interdisciplinary team.
- **Indonesian research group:** As \*Lammers came back in 2020 from her Fulbright Fellowship in Indonesia with a lot of rich data about youth digital literacy practices, she offered doctoral students the opportunity to work with her in analyzing these data and disseminating findings. The five students who volunteered for this unpaid research apprenticeship have benefited from a unique opportunity to develop their skills in coding qualitative data, conducting literature reviews of international education policy and research about digital literacy curriculum initiatives in Southeast Asia, and writing for publication. One of these students also served as a research assistant in charge of organizing the group's work across multiple digital platforms, while another contributed quantitative analysis support to the project.
- **Fanfiction teacher learning study:** Another student served as a research apprentice with \*Lammers and her co-PI Alecia Magnifico (University of New Hampshire) on this study, learning qualitative coding techniques, developing greater understanding of new literacies theory, and learning social practices related to publication.
- **RAPID-AI project:** This project also provided assistantship opportunities to two students to support the survey administration and analysis, and the creation of innovative online resources, respectively.

### **Providing opportunities to learn about designing and facilitating professional learning**

The professional development contracts awarded through four state grants in 2021 provided new opportunities to provide paid "PD apprenticeships" to current doctoral students and recent doctoral graduates, as they served in supporting roles in year-long professional development offerings that were delivered fully online, while also participating in key planning meetings. To date, a few doctoral students and doctoral graduates have taken advantage of this opportunity.

### **Promoting and supporting dissertations on LiDA topics**

LiDA staff and community members also offer support to our doctoral students' research via students' dissertations. These culminating independent research projects often represent years of work for doctoral students, with a great deal of support and guidance from their chair and committee members. When graduates move on from the Warner School, these dissertations also often end up defining the research agenda of the first years after graduation for those students who move on to become researchers. As such, we find strategic value in continuing to promote dissertation research that explores cutting edge

LiDA topics across a variety of contexts. The list below highlights some of the many innovations in curriculum, teaching, professional development/coaching, student learning, technology integration, leadership development, and patient care that Warner students have explored in the last three years.

The following LiDA-related dissertations have benefitted from the support of LiDA staff - either on the student's dissertation committee or in other ways - since the beginning of the LiDA Center in 2018 (listed in alphabetic order by student last name):

- Aliedim, Riham, (2023). *Can We Walk a Mile in Our Patients' Shoes? A Mixed Methods Study on the Educational Potential of Immersive Virtual Reality in Empathy Training for Medical Students*
- Bello, Meghan (2021). *How Can the Gates Chili Central School District Increase Effective Use of Instructional Technology? A Decision Analysis Dissertation.*
- \*Borys, Zenon, (2023). *Teachers' Curriculum Practices in the Digital Age*
- Buholtz, Kim. (in progress). *A Program Evaluation of the University of Rochester Medical Center Simulation for Operating Room Safety Program*
- \*\*Carson, Cynthia, (2023). *Coaching from a Distance: Exploring Coaching Practices of Video-based Online Coaches*
- \*\*Comstock, Keirah, (2024). *ESOL Teachers' Technology Integration While Working with ITLs*
- Duan, Xueyan, (2022). *Investigating language learning opportunities provided by out-of-school online EFL courses for Chinese K-12 students*
- Fairben, Kevin. (2021). *Examining Self-Regulated Learning of Secondary Students in A Blended Learning Environment*
- Gomulak-Cavicchio, Joseph. (2019). *A Program Evaluation of the University of Rochester School of Nursing Clinical Nurse Leader Program*
- \*\*Hafsa, Syeda Farzana (2019). *Investigating Teachers' Identity Development in a Hybrid Course to Prepare Online Teachers.*
- \*Han, Yu Jung, (2022). *Extramural English in an Affinity Ecology: Intersecting Spaces for Interest-driven English Learning*
- \*\*Herbert, Paul (2024). *Using Augmented Reality to Enhance Learning and Motivation for Anatomy Students.*
- Migliore, Jennifer. (2019). *Developing Collaboration in a Structured Online Professional Learning Community: An Action Research Study*
- O'Dell, Nicole (2019). *Self-Representation and Social Identity in Discussion Threads: The Experiences of Deaf College Students in an Online Learning Community*
- Schneider, Erin. (2021). *Hilton Central School District and the Need for Positive Digital Citizenship Skills: A Decision Analysis Dissertation*
- Smith, Caitlin. (2019). *How Should the Learning and Development Department at the University of Rochester Train Subject Matter Experts (SMEs) on the Department's Online Course Development Process?*
- \*\*Textor, Kristana, (in progress). *Motivation and Minecraft: A Mixed Methods Study on Digital Recreations of College Campuses During the Covid-19 Pandemic*
- Ver Steeg, James, (in progress). *Queering Online Learning: Using Zoom as Platform for LGBTQ Leadership Training and Identity Development*
- Xiao, Qinqin (2024). *"High School Students' Learning Gains, Motivation, and Cognitive Engagement When Exploring Through a Virtual Reality Robotics Simulator Game"*
- Zhang, Yadi (in progress). *"Learning Together: ESL Teachers' Identity Negotiation Alongside Refugee Adult Learners in a Community-Based English Program"*