

# Notes on JCDL 2018 Doctoral Consortium from Workshop Organizers

## Workshop Overview

Oksana L. Zavalina  
University of North Texas  
1155 Union Circle 311068, Denton, TX  
76203-5017  
United States of America  
oksana.zavalina@unt.edu

J. Stephen Downie  
University of Illinois at Urbana-  
Champaign  
501 E. Daniel St., MC-493, Champaign,  
IL 61810-6211  
United States of America  
jdownie@illinois.edu

Sampath Jayarathna  
Old Dominion University  
3801 West Temple Avenue, Pomona,  
VA 23529  
United States of America  
sampath@cs.odu.edu

### ABSTRACT

This is an overview of the Doctoral Consortium<sup>1</sup> workshop organized and held as part of the Joint Conference on Digital Libraries 2018 conference in Fort Worth, Texas.

### CCS CONCEPTS

• **General and reference** → **Document types**; Surveys and overviews

### KEYWORDS

Doctoral research

#### ACM Reference format:

O.L. Zavalina, J.S. Downie, and S. Jayarathna. 2018. Notes on JCDL 2018 Doctoral Consortium from workshop organizers. In *IEEE TPDL Bulletin Special Issue*. 2 pages.  
DOI:

## 1 INTRODUCTION

The Doctoral Consortium — held annually as part of the program of the ACM/IEEE Joint Conference on Digital Libraries preceding technical program — is a workshop for Ph.D. students from all over the world who are in the early phases of their dissertation work. The goal of the Doctoral Consortium is to help students with their thesis and research plans by providing feedback and general advice in a constructive atmosphere. Students present and discuss their research in the context of a well-known and established international conference, in a supportive atmosphere with other doctoral students and an international panel of established researchers: prominent professors and experienced practitioners in the field of digital library research.

Submissions relating to any aspect of digital library research, development, and evaluation are welcomed, including: technical advances, usage and impact studies, policy analyses, social and institutional implications, theoretical contributions, interaction and design advances, and innovative applications in the sciences, humanities, and education. Doctoral students interested in participating in the Doctoral Consortium submit the following application documents:

- an extended abstract (6-8 pages long) describing their digital library related research. This document should identify one or more significant problems, clearly formulate research questions, summarize the current knowledge of the problem domain and the state of the art of solutions, describe research methodology to be applied, present preliminary results if any, describe expected contributions of the applicant to the research area, and (for technical research) describe how the research is innovative, novel, or extends existing approaches to a problem.
- a short (one-paragraph) statement of expected benefits of participation for both the applicant and the other consortium participants, with clear discussion of expected contributions and gains
- a current Curriculum Vitae with the maximum length of 2 pages
- a 1-page signed letter from student's research supervisor that supports student's attendance at the JCDL Doctoral Consortium.

JCDL 2018 Doctoral Consortium was co-chaired by Dr. Oksana L. Zavalina (Associate Professor and Associate Director of Information Science Ph.D. Program, University of North Texas Department of Information Science), Dr. J. Stephen Downie (Professor and Associate Dean for Research, University of Illinois

---

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author.

at Urbana-Champaign School of Information Sciences), and Dr. Sampath Jayarathna (Assistant Professor, currently Old Dominion University Department of Computer Science, at the time of JCDL 2018 Doctoral Consortium California State Polytechnic University Department of Computer Science). A total of 20 Doctoral Consortium submissions were received. After reviewing all submissions, 11 best submissions were selected to be presented at the full-day workshop that took place on June 3, 2018. These submissions represented various areas of digital library research conducted by Ph.D. students from 6 universities located in North America, Europe, and Asia.

The following is the list of accepted Doctoral Consortium submissions:

- “A Semantically Enriched Recommendation and Visualization Approach for Academic Literature” by Corinna Breiter
- “Analyzing Formula Concepts and Patterns to Improve Literature Exploration and Recommendation for STEM Documents” by Philipp Scharpf
- “Automatic Mathematical Information Retrieval to Perform Translations up to Computer Algebra Systems” by Andre Greiner-Petter
- “Bootstrapping Web Archive Collections of Stories from Micro-Collections in Social Media” by Alexander Nwala
- “Digital Libraries for Experimental Data” by Susanne Putze
- “Dual Language Information Seeking in Digital Libraries” by Hani Alsalmi
- “Establishing and Verifying Fixity of Archived Web Pages” by Mohammed Aturban
- “Exploring the Implications of Artificial Intelligence in Various Aspects of Scholarly Peer Review” by Tirthankar Ghosal
- “Exploring the Knowledge Curation Work of Wikidata” by Timothy Kanke
- “Improving Collection Understanding in Web Archives” by Shawn Jones
- “Theorizing Success: Measures for Evaluating Digital Preservation Efficacy” by Stephen Abrams.

Selected applicants received complimentary JCDL conference registration and were encouraged to apply for a SIGIR-sponsored Student Travel Award to help cover some of the costs associated with travel and lodging. Experts — researchers and practitioners with in-depth knowledge of information science or computer science field and a Ph.D. degree — reviewed accepted Doctoral Consortium submissions and provided comments on the content of the thesis as well as on the presentation. Accepted abstracts were distributed to participants as the workshop proceedings, for mentors and other interested participants to read and provide feedback. A presenter who could not participate in the Doctoral Consortium event in person received feedback after the conference.

The Doctoral Consortium event on June 3, 2018, was well attended, with 33 participants: experienced researchers working in either academia or the industry, and student researchers.

Workshop participants represented a total of 22 institutions in 8 different countries all over the world. Ten of the participants served as mentors for doctoral students who presented their work as part of the Doctoral Consortium. Additional experts participated in mentorship activities online.

During the Doctoral Consortium event, 10 doctoral students made 20-minute presentations on their research, focusing on the main theme of their thesis, what they have achieved so far and how they plan to continue their work. Presentations were followed by lively discussion and feedback from both the panel and other participants on their current research and guidance on future research directions, as well as more general questions (e.g., on the differences in Ph.D. studies in different countries).

This special issue of the TCDL Bulletin, the publication of the IEEE-CS Technical Committee on Digital Libraries, includes revised versions of JCDL 2018 Doctoral Consortium presenters’ extended abstracts that were updated by presenter based on the feedback they received during and after the Doctoral Consortium event.