



The Role of Virtual Doctoral Consortia in the Post-2025 Computer Science Education Landscape

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Abstract

Doctoral consortia (DCs) are an essential element of research training, where doctoral students have the opportunity to present their work to an audience of skilled discussants and an extended peer group. Though face-to-face events are preferred, recent changes to the geopolitical climate and availability of funding in Computer Science Education are decreasing the likelihood of the level of student and discussant movement that can maintain general access to the DC experience. Hybrid solutions can be problematic, yet solid virtual events have promise, even if not the same as a face-to-face activity. We propose a regular cycle of virtual DCs held to maintain the high quality of graduate student support and skill development.

CCS Concepts

• **Social and professional topics** → **Computer science education**.

Keywords

doctoral consortium, research skills, equity, accessibility

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1 Introduction

Traditionally, DCs have been hosted as face-to-face activities that are co-located with major conferences and conference groups. Activities within a DC include feedback on student research plans, networking with student peers and established academic colleagues, gaining experience of the review process, and providing useful information for future development [1]. DCs provide ample opportunity

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for a student to consider ‘what if’ and discuss this with the attendees at the physical location. Recent changes in the geopolitical climate have led to a chilling in the ability of professional members of the CSEd community to travel and support their students in their own travel. This is not just an issue of funding. It reflects changes in ease of travel through both visa granting as well as the perception of safety while travelling. Although the face-to-face DC is preferred, this curtailment is going to be a problem for the foreseeable future.

As an alternative, telepresence is now in use for a range of conferences and venues such as SIGCSE Virtual, where the supporting technology can share images and sound from presentations, using technologies such as Zoom and Teams, and attendees can discuss their issues and questions using hosted chat, comments on the video stream, or through third-party discussion forums such as Discord. While this can work well for the generally broadcast mode of a presentation, even the best online communication mechanisms cannot replace the experience of face-to-face discussion in an unstructured physical environment that is not dominated by a single presenter.

In the hybrid space, a number of conferences have experimented with a parallel virtual stream to their physical schedule. The overall response to this has been that we have, unsurprisingly, split the attendees into two groups with the requisite issues of split attention, implicitly favouring of whichever group is being focused on.

2 Proposal

We propose that there be two virtual Doctoral Consortia hosted every year in the community, where an existing Virtual DC, such as SIGCSE Virtual, be counted towards that number. We propose the establishment of virtual Doctoral Consortia that have the same level and quality of discussants as face-to-face DCs, are limited to 12 or fewer students, are 100% on-line, have a synchronous/asynchronous schedule, which could include activities/tasks on one or more days, are scheduled for shorter periods of synchronous activity to avoid online session fatigue, with times offset to accommodate northern and southern hemisphere timezones, may have a publication venue for both abstracts and posters, and are supported by high quality communications and presentation software.

References

- [1] Australian Centre for Entrepreneurship Research. 2024. *Doctoral Consortium (D)*. Australian Centre for Entrepreneurship Research. Retrieved Sep 24, 2024 from <https://research.qut.edu.au/ace/doctoral-consortium-dc/>