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# Expanding the Circle of Critical Friends in UK Computing Education Research with the Works-in-Progress (WiP) Workshop

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## ABSTRACT

The infrastructure for expanding and developing researchers in any given community will comprise of many different components. The computing science (CS) education research community in the United Kingdom and Ireland is comparatively young when contrasted with other research communities. Over the past few years a number of venues and instruments have been introduced to support the development of CS education researchers in the United Kingdom and Ireland. The present editorial outlines the rationale and structure for a forum for established academics to discuss and review on-going work.

## CCS CONCEPTS

• **Social and professional topics** → *Computing education*.

## KEYWORDS

computing science, computing science education

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## 1 INTRODUCTION

The United Kingdom and Ireland have a rich and established history of computing education [1, 4]. However, despite such history, there has been less strategic investment and planning in the infrastructure for computing science (CS) education research in the region, in terms of funding and instruments to support the effective development of researchers in CS education [2].

The United Kingdom and Ireland Computing Education Research (UKICER) conference is an attempt to address some of the concerns by providing a venue for researchers in CS education to connect, collaborate and exchange ideas. UKICER has supported a number of instruments to develop researchers in CS education. These include a doctoral consortium [5] for research students as well as a model for undertaking multi-institutional studies in the form of Research in Practice Project Activities or RiPPAs [3].

For the present conference, UKICER continues to introduce instruments to support the development of researchers in CS education with the inaugural Works-in-Progress (WiP) workshop. The contributions of the present editorial are to detail the:

- rationale for the Works-in-Progress (WiP) workshop,
- workshop structure to support successive chairs in maintaining it.

## 2 GROWN-UP DOCTORAL CONSORTIUM

The goal of the Works-in-Progress (WiP) workshop is to create a supportive workshopping of research ideas. It is structured to provide non-judgemental, encouraging, thoughtful, helpful, and engaged support. Colloquially, it has been referred to as a “doctoral consortium for grown-ups” (adults) as participants are employed academics that present work-in-progress they wish to receive feedback on. The workshop has successfully ran for a number of years as part of the ACM International Computing Education Research (ICER) conference.

However, unlike a doctoral consortium, CS education research academics are not all at the same stage in their career, and may have widely differing backgrounds. Hence, the subject matter for a WiP submission is very divergent and can take many forms, such as: a germ a research idea, draft grant proposal, rejected paper, analysis approaches, framings or challenges in a research project.

The important point is that the WiP is not about completed work, but work-in-progress, and receiving feedback on it from peers. The WiP can be a rare opportunity for many academics to talk with knowledgeable peers, as often in their home context they may be the only person working on CS education research.

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### 3 WORKS-IN-PROGRESS WORKSHOP

The structure of the Works-in-Progress (WiP) workshop can be considered in terms of the initial *call for participation*, the *selection* of participants and lastly the expected *structure* of the workshop.

#### 3.1 Call for Participation

Potential participants are required to submit a one-page summary of a project, that is in progress, that they would like to discuss and present at the WiP. There is no strict format, but participants are advised to communicate what prior work they have completed and what expertise they can bring to the workshop.

Participants are required to state the title of the project, provide a brief description (between one and three paragraphs in length), the level of project progress (e.g. work has only just begun, all the way to near completion), the type of feedback sought from WiP participants (e.g. critique, research questions, associated work etc) and their research experience (e.g. qualitative, quantitative, mixed methods etc).

#### 3.2 Selection

The proposal submitted by potential participants is considered by the WiP chairs. The chairs consider each proposal both in terms of the content - is the work on a CS education research topic, is it sufficiently described - and on the balance of topics and candidates.

The contribution of each candidate is important as the WiP primarily succeeds or fails on the commitment, engagement and experience of those that participate in the workshop. Ideally, each participant will have a dedicated hour within the workshop, thus space at the workshop is limited to ensure that each participant gets sufficient time to allow deep discussion of their work.

#### 3.3 Structure

Participants are notified at least six weeks in advance of the WiP workshop of acceptance and are expected to prepare in advance of the workshop as to ensure optimal use of time.

**3.3.1 Pre WiP.** In advance of the WiP accepted participants are required to produce a white paper or “primer” for all other WiP participants that serves as a conversation or discussion piece. The primer is private, it does not form part of the conference proceedings and is not shared beyond the workshop. The focus of the WiP is to elicit feedback and participants are advised to consider structuring the primer to guide others to produce the feedback that would be most useful. The primer should provide enough information to support peers in understanding the work, but not so much that they are overwhelmed. Consequently, the primer should be at least two-pages in length, but not exceed four pages. All participants are expected to spend at least one week considering primers and developing feedback on them. Participants are then well prepared in advance of the workshop.

**3.3.2 During WiP.** Each participant is allocated a time-slot during the WiP workshop. There is no strict format for the allocated time-slot. Participants have discretion to design and use the time slot as they see optimal to present their work and receive feedback from peers.

Participants are advised not to be defensive about feedback they receive, the aim is not to defend the work-in-progress presented. Participants should seek wide, honest and diverse opinions and not seek to get others to agree with their position or interpretation of the work-in-progress.

Conversely, in providing feedback, participants are advised to provide feedback that is relevant to the work-in-progress and aligned to what is sought by the presenter. Participants should aim to support and help others in improving their work, not only in having an interesting conversation. Nevertheless, participants may want to probe the presenter with questions that frame issues they are encountering in a different light as sometimes presenters may not be sure what feedback would be optimal.

**3.3.3 Post WiP.** There are no specific requirements or expectations after the WiP workshop completes. The session is designed to be self-contained and effectively complete once the workshop ends.

However, previous participants have revised and resubmitted papers based on discussions (most often, these have then been accepted); improved research study designs; submitted improved grant proposals. Sometimes participants remain connected after a WiP and continue to act as critical friends to one another as they wrestle with subsequent challenges in CS education research.

### 4 CONCLUSION

The present editorial has outlined the rationale for the Works-in-Progress (WiP) workshop as well as providing detail on the structure to support successive chairs in delivering it. The aim of the workshop is to provide a valuable venue for employed academics to exchange feedback to improve work that is in progress, not to discuss work that is already completed. The core principle of the WiP is a commitment from each participant in supporting peers to improve their work-in-progress with relevant feedback. The reward is that those same peers will do the same, when each participant presents their work. The expectation is the workshop will be a valuable instrument to the CS education research infrastructure in the United Kingdom and Ireland.

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