Title: Liberal Arts Computing Curricula: Innovations, Challenges, and Opportunities

Abstract: Organized by members of the SIGCSE Committee on Computing Education in Liberal Arts Colleges, this pre-Symposium event will let us share and learn about curricular innovations, challenges, and opportunities particular to our liberal arts settings.

Curricular models and suggestions for discussion topics related to challenges and opportunities will be solicited prior to the event. Curricula that represent a breadth of approaches, potential for broader adoption/adaptation, and potential for broadening participation in computing will be selected for presentation to the group. These presentations will be followed by breakout discussions of participants' local curricula. Later breakout discussions will focus on the challenges and opportunities presented by teaching computing in a liberal arts setting, as suggested by the community prior to the event.

All submitted curricular models and discussion topics will be collected and shared with the broader liberal arts computing community through a public repository maintained by the Committee. Participants will be invited to contribute to the preparation of a report on the event to be submitted to a peer reviewed venue for broader dissemination.

The event will conclude with a short business meeting where participants will help identify and define opportunities for the Committee to further support the liberal arts computing education community. Optional dinner groups will provide a venue for further networking.

All interested faculty and students are welcome.

Proposers:
Grant Braught, Dickinson College, braught@dickinson.edu, http://users.dickinson.edu/~braught/
Janet Davis, Whitman College, davisj@whitman.edu, http://cs.whitman.edu/~davisj

Event URL: https://computing-in-the-liberal-arts.github.io/SIGCSE2019-PreSymposium-Event/

Significance and Relevance of the Event Topic/Purpose: The SIGCSE Liberal Arts Committee was established in 2016. Among its goals was to assess the need for an ongoing organization to support and represent faculty teaching computing as a component of a liberal education. The Committee's initial report confirmed these needs, and the Committee's new charter as of June 2019 commits to moving toward the formation of a permanent organization that addresses these needs. This event is an early step in that process. The focus on curricular design is appropriate as it has been a central concern and perennial interest of the Committee's membership in past BOFs and Special Sessions. This Committee-sponsored event will bring the community together for mutual support and learning, as well as discussion of future Committee activities.

Intended Audience: The intended audience consists of faculty teaching computing as a component of a liberal education. We expect these faculty will come primarily but not exclusively from liberal arts colleges. Attendees may also include graduate and undergraduate students with an interest in liberal education. Based on email list membership, survey responses, and participation in past events organized by the Committee, we are anticipating approximately 40 attendees.

Expertise of Organizers: Grant Braught is Professor of Computer Science at Dickinson College, a small liberal arts college in Carlisle, PA. A regular presenter at SIGCSE symposia, Grant co-presented the Committee status update at SIGCSE 2017 and co-authored the Committee's first formal report in 2019.

Janet Davis is Associate Professor and Microsoft Chair of Computer Science at Whitman College, a small liberal arts college in Walla Walla, WA. Janet's contributions to SIGCSE symposia have included

workshops, panels, and Birds-of-a-Feather sessions. She served as program chair for CCSC-NW 2017 and is a new member of the Committee leadership team.

Rough Agenda for the Event: We propose a half-day event, preferably in the afternoon.

1:30-1:45	Overview of the event, introductions, and initial networking activity.
1:45-2:15	Presentations of innovative curricular models for computing education in the liberal arts (number and duration depending upon submissions). Curricular models presented will be selected from submissions (see below).
2:15:-3:00	Breakout session to discuss curricular design with report out. Foci for the breakout groups will mirror themes from the curricular models presented.
3:00-3:30	Break
3:30-3:45	Enumeration of challenges, opportunities, and possible organizational directions.
3:45-4:30	Breakout session on challenges, opportunities, and organizational direction with report out. Foci for groups will be derived from submissions (see below).
4:30-5:00	Business meeting.
Evening	Optional dinner groups.

Types & Topics of submissions: Two types of submissions will be solicited from registered participants.

- **Innovative Curricular Models for Computing Education in the Liberal Arts:** Brief (2-page) descriptions of curricular models will be solicited, from which the program committee will select a broad sample for presentation during the event. A template and example will be provided on the event website. Submissions describing models that are particularly innovative, or that leverage particular opportunities and/or challenges presented by the liberal arts context, and/or show potential for broadening participation will be encouraged. In addition, models containing elements that show promise for adaptation/adoption across institutions will be given preference.
- **Challenges, Opportunities and Organizational Direction:** Short (1-paragraph) proposals for discussion topics will be solicited. The program committee will select topics of broad interest from the submissions. In conjunction with topics raised in past sessions, as highlighted in the Committee's Inroads report, the Program Committee will define 5-6 foci for the breakout groups.

The Program Committee intends to collaborate with the authors of the submitted curricular models and discussion topics to edit a collaborative event report to be posted to the event URL and submitted to a peer reviewed venue (e.g. SIGCSE Bulletin).

Program Committee:
Grant Braught, Dickinson College
Janet Davis, Whitman College
Douglas Baldwin, SUNY Geneseo
Amanda Holland-Minkley, Washington & Jefferson College
Henry Walker, Grinnell College