

Title: Innovations and Opportunities in Liberal Arts Computing Education

Abstract: Organized by members of the SIGCSE Committee on Computing Education in Liberal Arts Colleges, this Affiliated Event will promote connection and collaboration within the liberal arts computing community. This full day event will be split into two sessions. The morning session will focus on topics covering the breadth of opportunities and challenges faced by liberal arts computing educators. These topics may include innovative courses, curricula, co-curricular programs, DEI initiatives, academic and career advising, faculty recruiting and retention, and other issues as identified to have a specific liberal arts perspective. Topics for discussion will be solicited from the community at large and selected submissions will be presented and discussed at the event. Accompanying materials and/or notes will be added to the Committee's growing repository of materials. The afternoon session will provide facilitated workshop sessions focused on "A Workbook for Distinctive Computer Science Curricula: Designing Programs Aligned with Liberal Arts Institutional and Departmental Identity" which was created by Committee members as a liberal-arts supplement to the ACM/IEEE/AAAI CS2023 model curriculum. Parallel workshop sessions will be available for faculty who are entirely new to curriculum design, faculty who are experienced with curriculum design but new to our Workbook, and faculty who have worked through the first steps of the Workbook in previous workshops and are ready to proceed with later stages. Throughout the event, sessions will give participants an opportunity to learn about work already taking place within the liberal arts computing community as well as to engage in Q&A and breakout discussions. All interested faculty and students are welcome.

Proposers:

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Event URL: <https://computing-in-the-liberal-arts.github.io/SIGCSE2024-Affiliated-Event/>

Significance and Relevance of the Event Topic/Purpose: The SIGCSE Liberal Arts Committee is charged to support and represent faculty teaching computing as a component of a liberal education. This includes a commitment to providing opportunities for members of our community to gather, share information, collaborate, and discuss our goals. Our annual affiliated event prior to the Technical Symposium, dating back to 2020, has become an important venue for information sharing and draws strong attendance. This year's afternoon session will provide a particularly timely opportunity to discuss the forthcoming CS2023 curriculum guidelines and its impact on the liberal arts CS community.

Intended Audience and Attendance: 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 Committee events, we anticipate approximately 40-60 attendees.

Expertise of Organizers: The event proposers represent the leadership of the ACM SIGCSE Committee on Computing Education in Liberal Arts Colleges and have participated in or been Working Group leaders for previous Technical Symposium Affiliated Events sponsored by the Committee. The presenters for the afternoon session represent the authorship of a curricular practices article solicited by the ACM/IEEE/AAAI Task Force about the liberal arts perspective on CS2023.

Modality and Event Time Preference: This will be an in-person event. We prefer to hold this as an all-day event (morning and afternoon) on Wednesday, prior to the Technical Symposium.

Rough Agenda for the Event: This event will be broken into two sessions, each a half day. The morning session will focus on topics submitted by the community at large, as described in the abstract above. Selected submissions will be briefly presented, roughly 5-10 minutes each. Breakout sessions will then be used to allow attendees to discuss these topics in small groups with the presenter and other interested attendees. Depending on the number of submissions and range of topics, the agenda might have all topics presented first and then proceed into two rounds of breakout discussions (to allow participants to focus on more than one topic). Alternatively, we may have two sub-sessions of topics presented followed by a breakout session for just those topics.

The afternoon session will be run as a set of parallel, facilitated workshops focused on “A Workbook for Distinctive Computer Science Curricula: Designing Programs Aligned with Liberal Arts Institutional and Departmental Identity”, created by Committee members as a liberal-arts supplement to the ACM/IEEE/AAAI CS2023 model curriculum. Participants will get an overview of both CS2023, the Committee’s involvement in representing the liberal arts perspective on the curriculum model, and the process outlined in our workbook. From there, parallel workshop sessions will be available for faculty who are entirely new to curriculum design, faculty who are experienced with curriculum design but new to our Workbook, and faculty who have worked through the first steps of the Workbook in previous workshops and are ready to proceed with later stages. The Workbook is publicly available through Creative Commons license and the workshops will be designed to prepare participants to return to their institutions to continue the process with their colleagues.

Submission Guidelines: Submissions will be solicited for contributions to the morning session. Submissions will consist of brief (1 to 2 page) descriptions of the topic proposed for presentation. Submissions should either: (a) describe an innovation (a course, curriculum, program, etc.) with information about why it was adopted and how it has been successful; or (b) describe an issue/challenge with context and analysis to provide a useful or novel understanding of that challenge. In all cases, submissions should clearly demonstrate the connections to a uniquely liberal arts philosophy or context. Templates and examples for submission will be provided on the event website. Those submissions most suitable to adaptation/adoption across institutions will be given preference for presentation and discussion. Submissions that support efforts to broaden participation in computing will be particularly encouraged.

Laptop Optional

Audio/Visual and Room Setup Requirements: We will need to have a basic projection system available along with at least one microphone. A round-table room setup that can accommodate about 50 people would be ideal.