

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 Pre-Symposium event will promote connection and collaboration within the liberal arts computing community. This full day event will be split into two sessions. The first session will focus on innovations in computing education in the liberal arts and may include courses, curricula, co-curricular programs or other elements that reflect a specifically liberal arts perspective. Selected submissions will be presented and discussed at the event and also be added to the Committee's growing repository of materials. The second session will be held in an "unconference" format, with proposals accepted for working group topics from the community as a whole. Possible topics include but are not limited to course design and assessment for CS+X courses, strategies for recruiting faculty to teach at liberal arts colleges, and course-specific topics such as implementing specifications grading or implementing inclusive teaching practices. 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:

Amanda Holland-Minkley, Washington & Jefferson College, amh@washjeff.edu,

<http://www2.washjeff.edu/users/ahollandminkley/>

Grant Braught, Dickinson College, brought@dickinson.edu, <http://users.dickinson.edu/~brought/>

Event URL: <https://computing-in-the-liberal-arts.github.io/SIGCSE2022-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. This event builds on our 2020 and 2021 affiliated events and reflects input from the community at those sessions about priorities for this year. Despite the disruptions to the Technical Symposium over the past two years, we continue to have significant interest in these events. The 2020 event had to cap registrations due to the room size and the virtual 2021 event had almost 250 registrants.

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 Committee events including our 2020 pre-symposium event, we anticipate approximately 50-150 attendees between in-person and virtual attendance combined.

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.

Rough Agenda for the Event: We hope to hold this event with both a virtual and an in-person component. With the uncertainties of the past two years, we are also designing this event with significant flexibility to allow adaptation as the situation may change and we learn more about participant preferences for virtual versus in-person participation. Our preliminary plan, which we will gauge interest in, is to hold a virtual event prior to when participants would arrive at the Technical Symposium, with all participants invited to take part, and then build on that through the in-person component.

Focusing on the in-person component, the event will be broken into two sessions, each a half day. The first session will focus on Liberal Arts Approaches to Computing Curricula. The Committee will invite submissions of curricular challenges and innovations which will be shared in our curriculum repository and presented at the event in a panel format. That will be followed by breakout discussions themed around specific curricular challenges or innovations faced at liberal arts institutions. The second session will be held in an “unconference” format, in response to community feedback about the desire for time to connect and collaborate on projects of shared interest. Within this session, participants will select between topics, which can be organized in a workshop, working group, or discussion group style. Information about both the topics and the format of the group collaboration will be shared in advance. Members of the program committee will sponsor groups on topics known to be of interest, such as those highlighted in the abstract. In addition, a solicitation for topics and facilitators will be sent to the broader community.

Types & Topics of submissions: Submissions will be solicited for contributions to both of the planned sessions. Templates and examples for submission will be provided on the event website. All on-topic submissions will be shared with the community through our online repository. Those submissions most suitable to adaptation/adoption across institutions will be given preference for presentation and discussion.

- **Innovations in Liberal Arts Computing Education:** Brief (1 to 2-page) descriptions will be solicited of curricular innovations that reflect a specifically liberal arts philosophy. This may include full curriculum models, individual courses, outreach programs, co-curricular programs, or other interdisciplinary or liberal-arts focused educational initiatives. The program committee will select a sample for presentation during the event. Submissions describing innovations that leverage particular opportunities and/or challenges presented by the liberal arts context, and/or show potential for adoption and/or broadening participation will be encouraged.
- **Unconference Topics:** Brief (2-page) descriptions will be solicited of the topic proposed for discussion, intended format for the session, and desired outcomes or products, from which the program committee will select for inclusion at the event. Submissions will be reviewed for their relevance to the intended audience as well as breadth of topic across the event as a whole. The program committee may recommend some submitters merge topics if overlapping submissions are received.

Program Committee:

Curricular Innovations Working Group: Jakob Barnard (University of Jamestown), Grant Braught (Dickinson College), Andrea Tartaro (Furman University), Jim Teresco (Siena College), Henry Walker (Grinnell College)

Unconference Working Group: Amanda Holland-Minkley (Washington & Jefferson College), Mario Nakazawa (Berea College)

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.

Event Time Preference: Wednesday during the day, full day event