FALL 2025 – COS 397 COMPUTER SCIENCE CAPSTONE PROJECT PROPOSALS

Project Title: Mobile Conference App for 2027 International Writing Across the Curriculum Conference (taking place at UMaine July 7-10, 2027)

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Brief Description (approximately 500 words)

Every two years, the Association for Writing Across the Curriculum (of which Dr. Falconer is Incoming Chair) holds a 4-day conference: the International Writing Across the Curriculum Conference (IWAC). UMaine (Dr. Falconer) was selected to be the host in July 2027. For the last few conferences, we have tried a variety of approaches to organize the schedule, virtual participants, supplementary materials (like slides), and contact information of participants. We have used apps created by Whova, eShow events, and LineUPR, each of which has had its positives and negatives.

I am interested in having a mobile conference app that we could repurpose from conference to conference over time, rather than recreating the wheel every two years or asking repeat attendees to download a new app each conference. This app would allow participants to view the conference schedule in a variety of ways (e.g., by day, theme, presenter), to create bespoke agendas for themselves, as well as serve as a space to hold presentation materials (i.e., slides and handouts), communicate directly with presenters and other participants, and other features that the COS students might think are worthwhile (i.e., a wayfinding option? Or map interactivity?). This would also allow for announcements to be pushed by organizers to all users. Ideally, the mobile app would interact with a web browser (and database where all content lives).

The problem that I am trying to solve is that we have a mix of virtual and in-person attendance, now (due to COVID and government impacts on international travel). I am trying to find an effective way to allow in-person attendees to navigate the session schedule and find the info they need, as well as creating a way for virtual attendees to have more of a conference experience. We record many presentations for sharing via YouTube, as well as live streaming, but that loses the human interactivity element for virtual attendees. I would love, for example, for participants to be able to view prerecorded presentations in the app and to then (simply) message the presenters. I would also love to be able to easily upload recorded live presentations (if not live stream) so that those attending virtually can still participate.

Goals for the project (approximately 50 words)
Baseline goal: Create a mobile app that allows participants to view the conference schedule by theme, presenter, or day; create a bespoke schedule of preferred sessions; and allow organizers to send push notifications. Anything above and beyond that would be delightful.

Total Duration / Elapsed Time [in weeks]: Unsure. This would not be needed until July 2027.

I'm submitting now in case I have to purchase an app from Whova, etc.

External Schedules / Deadlines (conferences paper deadline? Meetings?) [if any]: July 1, 2027

Learning Objectives for student teams:

I expect that students would have an opportunity to problem solve, practice coding skills, work with a client with specific needs, work through audience analysis, and be creative about dissemination of information.

Expected Project Experiences (select from the list, check all that apply):

☐	Problem definition
☐	Project scope definition
☐	Design and implementation of research methodology
☐	Use of applied statistics
■	Data analysis
■	Workflow analysis
■	Development of functional specifications
■	Identification of and negotiation for needed project resources
■	Examination of an unfamiliar technical area
■	Identification of others' technical expertise
■	Identification and evaluation of alternatives
■	Development and presentation of recommendations

■	Responsibility and accountability for a discrete product
■	Role definition in a task group and participation in group dynamics
☐	Observation of supervisory activities (*e.g.*, personnel assignment, training, development of procedural guidelines)
☐	Observation of management styles
☐	Observation of organizational politics
☐	Preparation of a manuscript for publication

Recommended experience (What operating system is required? What programming language? Other skills?):

This is at the discretion of the student designers. Open source coding is greatly valued. It would need to work with Apple and Android phones.

Expected Outputs/Products and likely requirements (specific programming language, programming framework, operating system, integration with existing software, web-based requirements, *etc.*):

I'm not qualified to answer this question beyond having a mobile application.

Past experiences by the client (If software already exists, what is wrong? What has worked in previous versions, and what has not?):

The most recent LineUPR app was quite glitchy and hard to use. While the web browser version was fine, the actual mobile functionality was problematic. Part of the problem was that it worked within a web browser, but didn't feel mobile-friendly. Many of the users found it really challenging and ended up only using it to scroll for sessions. The map tool within was great, if not a little hard to use.

Whova has been great in the past, but it is cost-prohibitive. eShow events are frankly just awful.

Proposed Testing Plan (How will the team test their product? Do you have recommended/required testing strategies? What resources are available (test platform, stand-alone network, *etc.*)? Is test data available?):

I offer myself as a tester, as well as others on the conference organizing team. I don't have a specific plan at present, though I'd expect there would be iterative development and opportunities to test before the final was submitted. I can make test data available from the last

conference. We can potentially draw on the infrastructure for proposal submissions – I can ask the prior organizer if we can use the database built for the 2025 app. Alternatively, I can just create a dummy database based on the student-identified content needs.

Benefits to U Maine:

Aside from the fact that UMaine is hosting the conference, I do think it speaks to highlight on an international stage the work that our students are doing/capable of doing. UMaine would be perpetually linked to the app, and the students would be attributed creation credit in a visible way.

Project Sponsor(s):

It's really me, Heather Falconer, and IWAC.

Other Resource People:
Unknown

Software/server access required:
Unknown