

Diversity & Inclusion Initiative Workshop

ICAD 2018

Michigan Tech University

Summary:

In response to the very interesting ideas discussed during the ICAD 2017 Open Forum on Issues of Diversity, Equity, and Inclusion, ICAD 2018 will organize a **Diversity & Inclusion Initiative Workshop**. This will be the first of, what we hope will become, a series of hands-on workshops, on the development of audio-based educational tools and teaching scenarios of activities pertinent to the ICAD domain. These tools will be made available to the community for anyone interested in hosting outreach events as a means for familiarizing the general public with audio-related research activities pertinent to ICAD. The workshop is open to anyone working on or interested in ICAD-related research and/or education. Participants are encouraged to bring their laptops along with any other hardware or software tools, which they feel could be put into use during this workshop.

Duration: 1 hour and 30 minutes

We will spend the first 5 minutes doing a brief introduction and getting organized into the three scenarios and then into smaller groups of 2-5 people. The last 15 minutes will be spent wrapping up and giving brief summaries of each group's efforts.

Deliverables:

As the goal of this workshop is for participants to use their knowledge and skills to develop actual tools/scenarios/activities to assist in outreach events, ideally each group will brainstorm and/or prototype with the goal of submitting a write-up that includes:

- A summary of the main takeaway
- List of necessary materials (physical items, software, hardware, etc.)
- Detailed description of any setup/steps/instructions, etc.
- Specific target audience - if relevant (age, gender, any prior experience/knowledge, etc.)
- Specific target venue (30 minute classroom game, research demo-day, etc.)

As the duration of the workshop is fairly short, please focus your efforts on capturing the knowledge you have rather than learning something new.

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Three Scenarios:

Women and Minority Demo Days (HARDWARE-FOCUSED):

Work to develop materials that are specifically geared towards women and minorities that could be used at demo-day-type events organized by SWE/CRA-W/CDC and other programs that encourage girls and minorities to explore STEM fields

Example: Using sensors (touch, capacitive, light, etc.) that control sound (maybe using various software/hardware combinations like: controllers + wekinator, arduinos + mozzi, or other combinations of audio programming languages and input devices)

Computer Programming Curriculum (SOFTWARE-FOCUSED)

Work to develop materials that could be incorporated into a programming curriculum -- either introductory or more advanced

Example: Add auditory feedback to a scroll button on a basic webpage using web audio API that changes an audio parameter depending on the location on the page

Listening Games/Exercises (REAL-WORLD-FOCUS)

Work to develop materials/games that don't require computers which demonstrate and teach how sound can be used to convey/represent data

Example: A game that has students estimate how full glasses of water are based on how they sound when they are tapped