Who Has a Seat at the Table in CSed? Rethinking Equity Through the Lens of Decision-making and Power in Computer Science Education Initiatives

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ABSTRACT

Who makes decisions about what K-12 computer science education (CSed) should look like? While equitable participation is a central focus of K-12 CSed, the field has largely thought about equity through the lens of providing access to inclusive and robust CS learning. But issues of who has a "seat at the table" in determining the shape of those experiences, and the larger field that structures them, have been largely under-explored. This panel session argues that equitable CSed must take into account questions of participation in decision-making about CSed, with such issues of power themselves a key dimension of equity in any education effort. We highlight efforts engaging stakeholders from across the education landscape—parents, educators, community members, administrators, and students—exploring how decision-making is structured, how voices that are usually marginalized might be elevated, the tensions involved in these processes, and the relationships between participation and equity.

CCS CONCEPTS

• **Social and professional topics** → **K-12 education**.

KEYWORDS

equity, K-12 computer science education, decision-making

1 SUMMARY

This session elevates a particular dimension of equity in computer science education (CSed) —the question of who makes decisions about what CS education should and will look like. In recent years, the CS for All movement has seen tremendous growth, with districts and states across the US committing to ensuring that all youth—regardless of race/ethnicity, socioeconomic status, gender, home language—have an opportunity to learn CS. Yet commitments to access alone don't fully constitute CS education that is equitable [3]. Beyond questions of who has access to CS education and goals of broadening participation [2], many have considered equity through the lens of what 'counts' and constitutes rigor in CS (see the K-12 CS Framework), learning goals around ethics and social impacts of technology [5] and how CS gets taught (e.g. with culturally relevant and sustaining pedagogies, [4]). Orthogonal to all of these perspectives on equity remains a fundamental question of power - who has a voice in decision-making when it comes to shaping CS education? This panel aims to deepen conversations about equity and CS education by considering who has a seat at the table and the power to make decisions. In 2016, as states and localities announced CS education commitments, Margolis and Goode included ensuring the "bottom up" nature of policy-making in CS education among their ten lessons for the CS for All movement [1]. Since then, little attention has been paid to how community stakeholders (youth, families, educators, industry, etc.) are, or are not, involved in charting a course for and implementing CS education. This panel, comprised of practitioners working to incorporate a diversity of voices into CS ed, researchers working with families and classrooms, and a K-12 student and teacher, will highlight how stakeholders from across the education landscape have been engaged in CS ed decision-making, surfacing efforts that explore how decision-making is structured, how voices that are usually marginalized might be elevated, the tensions involved in these processes, and the relationships between participation and equity.

2 PANEL STRUCTURE

Introduction and framing (5 minutes) – The panel moderator will introduce the session, framing the focal dimension of equity: who

has "a seat at the table" when deliberating around CS ed visions. The moderator will also introduce the panelists and prepare audience members for the discussion period.

Panelist remarks (30 minutes) – Each of the four panelist groups will have between 7 and 8 minutes to share their efforts and/or research conducted around promoting practitioner, parent, student, and community voices in CS education decision-making. In one case, a researcher will share her slot with a high school teacher and student, and they will co-present their project.

Audience conversation (10 minutes) – Building on the ideas shared by panelists, audience members will be asked to consider questions such as: Within your institution, who has the power to decide what CS education looks like? How do you feel more voices can be elevated in the CS education decision-making process for your context? Which ideas resonated with you today and which do you feel were missing? These and other guiding questions will support small-group conversations, as well as the development of further questions for the larger group to discuss together.

Questions and Answers (30 minutes) – Moderators and panelists will share prepared questions, and audience members will ask the questions developed in their groups. The moderator will encourage both panelists and individuals in the audience to share comments.

3   POSITION STATEMENTS

3.1   Camie Belgrave, Director of Community Partnerships, CSforALL

Belgrave will share how CSforALL, a field-building organization focused on promoting CS education nationwide, works to change who has a seat at the table in the field of CSed. By using its membership outreach, annual summit, and commitments, the organization aims to elevate voices that have been previously excluded or marginalized in the field. In addition to sharing best practices from that work, she will share the results of the youth panels and youth commitments that she is convening for CSforALL's 2020 Summit to highlight students' leadership efforts.

3.2   Jill Denner, Senior Research Scientist, ETR

Denner will describe her work with a school district's administrators and community coordinators to bring families, especially from low income and Spanish-speaking households, to the table in school-based CSed efforts. By showcasing both results of a family survey and video-recorded remarks from local parents, Denner will highlight the diversity of parents' visions for CSed and describe how the planning and implementation of Family Code Nights at the schools created spaces for the voices and leadership of Spanish-speaking parents. Her remarks aim to spark a conversation about how CS for All efforts can include the voices of all parents.

3.3   Jean Ryoo, Director of Research, Computer Science Equity Project, Center X, UCLA; Alicia Morris, Computer Science High School Teacher, LAUSD; Axel Tirado, Computer Science Student, LAUSD

Ryoo, Morris, and Tirado have been collaborating in research-practice partnership to prioritize the perspectives of those whose voices have been least heard in the CS for All movement: high school students who are underrepresented in CS (including young women, students of color, low-income students, and English Learners). Together they will share findings from an ethnographic study of Morris's Exploring Computer Science and Advanced Placement Computer Science Principles classrooms that highlight an asset-based approach to understanding what matters most for underrepresented students' CS learning experience. These findings can help inform CS curricular reform and professional development efforts.

3.4   Rafi Santo, Research Associate, CSforALL

A learning scientist working at the intersection of digital culture, education and institutional change, Santo will share the results of research he has conducted into how teacher voice is structured and incorporated in district-level CSed initiatives. He will discuss what factors shape teacher voice in district-wide CSed projects, sharing why promoting teacher voice is not quite as straightforward as simply giving teachers decision making power.

3.5   Sara Vogel, Doctoral Candidate, The Graduate Center, CUNY

Vogel will serve as the panel's moderator. Vogel and colleagues convened a series of participatory workshops with CS education stakeholders that resulted in the CS Ed Visions Framework, a tool for surfacing diverse visions and values under-girding stakeholders' arguments for CS for All [6]. Vogel will frame the dimension of equity that panelists will explore, positing the value of using tools like the Framework to promote meaningful dialogue with stakeholders traditionally excluded from CS education decision-making.

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