DEI Statement

Adithya Murali
University of Illinois Urbana-Champaign
https://muraliadithya.github.io

To be an academic is to lead a life of the mind. However, discourse on the quality of this life is not commonplace. The success of academic life is contingent upon being part of an environment that prioritizes mental well-being and welcomes a diversity of intellectual abilities.

Passionate and motivated though they are, academics who struggle with mental health issues and face systemic adversities owing to neurodiversity often pursue their scholarship at the cost of ignoring and devaluing their own human experience even as they work on a vision for a better future for all humanity. Therefore, **conversations about removing obstacles stemming from mental health and neurodiversity are essential to building an academia that values the humans who produce research as much as it values the research itself**. My efforts towards fostering Diversity, Equity, and Inclusion have been motivated by my experiences with these issues. In the rest of this statement, I describe my past DEI efforts and future plans.

DEI Efforts

Creating Inclusive Teaching Resources. One of the aspects of diversity that I encounter regularly as a teacher is diversity in learning abilities. Differences in students' learning abilities can be attributed to various factors beyond the student's effort or mastery of the material. **My long-term goal as a teacher is to conduct an inclusive classroom where only effort and mastery influence the student's performance in the course.** I provide an example of my initial efforts in this direction.

During one of my TA appointments, I noticed that one of my students was very active in the class and seemed to understand the concepts well but did not submit the assignments on time. She would always write to me a few hours before the homework deadline having completed only half the assignment. I spoke to her and gathered that it took her the entire time allotted for the assignment to read and digest half of the questions. She had not asked me for help or more time because she was used to not being able to complete her work on time and thought of herself as a slow learner. The core issue was that she was unable to digest word problems easily owing to attention issues. I consulted several experts on learning difficulties/disabilities and realized that I could control the student's attention by simply highlighting certain key phrases in bold. I implemented this and the student submitted every subsequent assignment on time! In another instance, I encountered a similar situation where the student's difficulty stemmed from a lack of familiarity with computer science jargon (she belonged to a different engineering discipline). I solved this problem by adding a trivial worked-out example to the assignment and, as before, found that her performance improved greatly.

These experiences taught me the outsized potential of even small but well-designed changes to make my teaching more inclusive. I intend to work on developing more comprehensive frameworks for evaluation that are individualized and inclusive in my teaching roles as a professor.

Accommodating Neurodiversity Through Process Change. Neurodiversity refers to the variability of differences in cognitive abilities among different people. Research involves a wide range of cognitive functions beyond technical skills: prioritizing tasks, keeping track of time, working on concurrent projects or approaches, etc. Neurodivergent people have fundamental difficulties performing one or more of these cognitive functions. This is not for a lack of experience or organization, rather it stems from the fact that neurodivergent people lie outside the "norm" of accepted variability for the various cognitive functions. Building an inclusive workplace involves moving away from the idea of a norm and redesigning our ways of work, collaboration, and incentive structures.

Unfortunately, without this awareness, neurodivergent people can be perceived as incompetent, ill-disciplined, or even lazy (I have myself been called all these things!). This results in poor self-image and stress, which is a self-fulfilling prophecy that leads to poor results. In my experience, **neurodivergence and poor mental health go hand in hand in a workplace that is not inclusive**.

I strive to create an inclusive workplace by redesigning how I manage research processes in ways that accommodate the diverse strengths of my mentees and collaborators. For example, I observed that one of my mentees was constantly struggling to achieve their weekly goals. They would understand the tasks extremely well, but were unable to complete them and could not explain why. As a result, they concluded that they were not good at research.

I first tried to address the problem purely on the technical front by simplifying their tasks and coaching them through each step, implementing a lighter but more continuous feedback system. However, when the problems persisted I understood that the issues resulted from executive dysfunction, not inexperience. I then changed my strategy, devoting a significant portion of my mentorship time to helping them better estimate the time they would need to complete their tasks. I **co-evolved a system of accountability** that was considerate of the non-linearity of my mentee's performance and allowed them to feel supported without feeling monitored. This had exceptional results, and **my mentee was able to complete a task that had taken them 5 days before the system was implemented in just 1 day!** This also gave them more confidence. A further rewarding moment occurred when they realized that they were passionate about research and even suggested ideas for projects we should pursue next! My goal is to enable all researchers to experience this joy and confidence.

Building Supportive Communities. Ph.D. students often resort to peer support to share the difficulties they face in their everyday academic and personal lives. A peer can offer trust, understanding, and perspective in a way that a more senior mentor, therapist, or academic advisor cannot. This became an especially important problem during the pandemic when students were isolated from peer groups and no longer felt like they had shared experiences with others. The perceived uniqueness of their issues prevented them from speaking about their difficulties openly.

In response to this problem, **I started a support group for Ph.D. students in programming languages called PLUG**[1]. The group's members belong to different backgrounds, stages of study, and areas of computer science. **Our mission is to aid our members in taking ownership of their goals and help them clarify their priorities by reaffirming the best parts of themselves.** Providing a sense of shared experience helps our members de-legitimize the negative self-image they cultivate in isolation. The group helps members deal with many different kinds of issues including unhealthy advising situations, finding motivation for research (e.g., in the age of GPTs), racial and cultural issues (especially for immigrant students), gender and sexual identities, and of course, mental health and neurodiversity.

Members have experienced a lot of success with the support they get from the group. For example, one student felt that they had a poor fit with their advisor but they could not point to a specific issue. I listened to their concerns and designed a series of questions that helped the student reflect more deeply on their situation. The student engaged in this reflection and realized that they had specific and unique advising needs. Subsequently, the student established better communication with their advisor and turned their hitherto stalled collaboration around into a publication! Of course, there have also been instances where the students improved their circumstances but continue to battle their issues. Personally, these experiences have helped me move away from defining my role in terms of my ability to completely solve problems. I provide the best value I can at every point and learn from my failings. Building a supportive and inclusive community is a constant effort, and I believe the maturity of perspective I gained from this experience will help me in all aspects of my career as faculty.

Initiative and Outreach

The efforts described in the previous section pertained to individuals and communities who share my space in my various academic roles. Apart from these, I also develop new initiatives and participate in outreach efforts to address DEI issues at a systemic level.

Strategy Consulting for Community Building. Community building is an important part of empowering individuals who belong to underrepresented or marginalized communities. I am frequently consulted by students and student organizations on **navigating or changing institutional culture and processes to better reach disadvantaged groups**. This includes issues like increasing student engagement in initiatives for battling toxic advising practices, improving cohesion between students belonging to different research labs, and encouraging interest in research among undergraduate students (especially URM students). My suggestions on strategy for solving these problems have been described as creative and insightful, and they have been reasonably successful. I intend to develop this skill further as a professor in my capacity to affect institutional processes.

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[1]PLUG standing for Programming Languages UnderGround — a jocular name for people who only felt comfortable discussing their issues in secret.

Broadening Access to Technology Education. Basic awareness of technology and how people can use or misuse it is critical in the digital age. Following an incident in my local community where violent threats were made against a library owing to online misinformation, **I am working with the library to develop a program educating the public about identifying and dealing with online misinformation**. I am excited about this collaboration and intend to develop publicly available teaching materials.

Future Interests

I plan to continue my efforts and expand on the lessons I have gained from my past work. I am especially interested in two directions: (1) designing inclusive teaching methodologies, and (2) broadening access to technology education for the general public, especially for groups underrepresented in technology design and policy. I have started to work on the second direction in my ongoing DEI work.

In the first direction, I am interested in looking at inclusive course design. My teaching philosophy is centered around individual development, where assessment strategies can sometimes ignore the social context surrounding the student. I would like to investigate techniques to design assessments and evaluations that are inclusive. I am generally excited to work on broadening participation in computing.

The inclusive workplace of the future is not yet at hand. I intend to use my voice and position as a professor to further this goal.