Responsible Computer Science Challenge

With Great Code Comes Great Responsibility

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SCHMIDT FUTURES

Craig Newmark Philanthropies

Agenda: Responsible Computer Science Challenge In-Person Kick Off Meeting

Monday, July 15 6:30-8:30pm Dinner at Osha Thai

Tuesday, July 16 7:45-8:00am Arrive at San Francisco Office (2 Harrison Street,

Suite 175)

8:00-8:30am Breakfast

8:30-9:00am Introductions

9:00-10:00am Industry Panel, moderated by Kathy Pham with

David Baker (Google), Kathy Baxter (Salesforce), and Mary

Gray (Microsoft)

10:00-10:15am Break

10:15-10:50am First Round of Working Sessions

10:50-11:00am Break & Rotate

11:00-11:35am Second Round of Working Sessions

11:35-12:30pm Lunch

12:30-1:15pm Read out from the Working Sessions

1:15-2:15pm Working Group, Playbook, External Community of

Practice, Working Open

2:15-2:30pm Break

2:30-3:15pm MozFest 2019

3:15-3:30pm Break

3:30-4:15pm Keynote #1 w/15 minute discussion
Jenny Korn, Race and Media Scholar, Princeton

4:15-5pm Keynote #2 w/15 minute discussion
Sabelo Mhlambi, Human Rights and Technology Fellow,
Carr Center for Human Rights, Berkman Klein Center

5-7pm Rooftop Happy Hour

Allegheny College | Meadville, PA | Oliver Bonham-Carter

While studying fields like artificial intelligence and data analytics, students will investigate potential ethical and societal challenges. For example: They might interrogate how medical data is analyzed, used, or secured. Lessons will include relevant readings, hands-on activities, and talks from experts in the field.

Bemidji State University | Bemidji, MN | Marty J. Wolf and Colleen Greer

The university will lead workshops that guide faculty at other institutions in developing and implementing responsible computer science teaching modules. The workshops will convene not just computer science faculty, but also social science and humanities faculty.

Bowdoin College | Brunswick, ME | Stacy Doore

Computer science students will participate in "ethical narratives laboratories," where they experiment with and test the impact of technology on society. These laboratories will include transformative engagement with real and fictional narratives including case studies, science fiction readings, films, shows, and personal interviews.

Columbia University | New York, NY | Augustin Chaintreau

This approach integrates ethics directly into the computer science curriculum, rather than making it a stand-alone course. Students will consult and engage with an "ethical companion" that supplements a typical course textbook, allowing ethics to be addressed immediately alongside key concepts. The companion provides examples, case studies, and problem sets that connect ethics with topics like computer vision and algorithm design.

Georgetown University | Washington, DC | Nitin Vaidya and Maggie Little

Georgetown's computer science department will collaborate with the school's Ethics Lab to create interactive experiences that illuminate how ethics and computer science interact. The goal is to introduce a series of active-learning engagements across a semester-long arc into selected courses in the computer science curriculum.

Georgia Institute of Technology | Atlanta, GA | Ellen Zegura and Jason Borenstein

This approach embeds social responsibility into the computer science curriculum, starting with the introductory courses. Students will engage in role-playing games (RPGs) to examine how a new technology might impact the public. For example: How facial recognition or self-driving cars might affect a community.

Harvard University | Cambridge, MA | Barbara Grosz and David Gray Grant

Harvard will expand the open-access resources of its Embedded EthiCS program which pairs computer science faculty with philosophy PhD students to develop ethical reasoning modules that are incorporated into courses throughout the computer science curriculum. Computer science postdocs will augment module development through design of activities relevant to students' future technology careers.

Miami Dade College | Miami, FL | George Gabb and Joshua Young

The college will integrate social impact projects and collaborations with local nonprofits and government agencies into the computer science curriculum. Computer science syllabi will also be updated to include ethics exercises and assignments.

Northeastern University | Boston, MA | Christo Wilson

This initiative will embed an ethics component into the university's computer science, cybersecurity, and data science programs. The ethics component will include lectures, discussion prompts, case studies, exercises, and more. Students will also have access to a philosophy faculty advisor with expertise in information and data ethics.

Santa Clara University | Santa Clara, CA | Sukanya Manna and Subramaniam Vincent

This initiative will help CS students develop a deliberative ethical analysis framework that complements their technical learning. It will develop software engineering ethics, cybersecurity ethics, and data ethics modules, with integration of case studies and projects. These modules will also be adapted into free MOOC materials, so other institutions worldwide can benefit from the curriculum.

University of California, Berkeley | Berkeley, CA | Cathryn Carson, John Canny, and Dr. Margo Boenig-Liptsin

This initiative integrates a "Human Contexts and Ethics Toolkit" into the computer science/data science curriculum. The toolkit helps students discover when and how their work intersects with social power structures. For example: bias in data collection, privacy impacts, and algorithmic decision making.

University at Buffalo | Buffalo, NY | Atri Rudra and Varun Chandola

In this initiative, freshmen studying computer science will discuss ethics in the first-year seminar "How the internet works." Sophomores will study responsible algorithmic development for real-world problems. Juniors will study the ethical implications of machine learning. And seniors will incorporate ethical thinking into their capstone course.

University of California, Davis | Davis, CA | Annamaria (Nina) Amenta

Computer science students will be exposed to social science and humanities while pursuing their major, culminating in a "conscientious" senior project. The project will entail developing technology while assessing its impact on inclusion, privacy, and other factors, and there will be opportunities for projects with local nonprofits or government agencies.

University of Colorado, Boulder | Boulder, CO | Casey Fiesler

This initiative integrates an ethics component into introductory programming classes, and features an "ethics fellows program" that embeds students with an interest in ethics into upper division computer science and technical classes.

University of Maryland, Baltimore County | Baltimore, MD | Maria Sanchez

This initiative uses three avenues to integrate ethics into the computer science curriculum: peer discussions on how technologies might affect different populations; negative implications evaluations, i.e. "red teams" that probe the potential negative societal impacts of students' projects; and a training program to equip teaching assistants with ethics and equality literacy.

University of Utah | Salt Lake City, UT | Suresh Venkatasubramanian

Computer science students will be encouraged to apply problem solving and critical thinking not just to design algorithms, but also the social issues that their algorithms intersect with. For example: When studying bitcoin mining algorithms, students will focus on energy usage and environmental impact. The curriculum will be developed with the help of domain experts who have expertise in sustainability, surveillance, criminal justice, and other issue areas.

Washington University | St. Louis, MO | Ron Cytron

Computer science students will participate in "studio sessions," or group discussions that unpack how their technical education and skills intersect with issues like individual privacy, data security, and biased algorithms.