

Play 6. Enable CSR for responsible / ethical AI for longer term systems change

AI systems and their biases mirror and replicate existing structures of power and inequality in society. While it is not necessarily the responsibility of the business to correct for or adjust these inequalities, CSR and/or corporate foundations can promote equity and inclusion in material, strategic areas. CSR teams can serve as an incubator for different interventions internally while also supporting or developing longer-term interventions externally. CSR teams are well placed for this as they operate under a different incentive structure than technical teams, which tend to prioritize efficiency. Beyond advancing internal efforts, CSR teams can also be deployed to address biases in data; address power dynamics and lack of diversity in AI; and catalyze research and education (for data scientists, engineers and business students) on responsible AI.



PLAYERS INVOLVED:

- CEO
- Responsible AI lead
- CSR/corporate foundation teams



BUSINESS BENEFITS:

- Mitigate long-term risk
- Enhance brand and reputation
- Express and stand behind the firm's values.⁷

Elements:

- Leverage CSR teams to advance internal bias mitigation efforts (E.g., Having CSR teams coordinate and manage employee education and training around mitigating bias).
- Align CSR efforts to mitigate bias in AI and support long term systems change with the company's own goals and material, strategic interests.
 - Identify opportunities that align with the company's own goals and can advance longer term systems change in areas the company works in and/or impacts. Which of these opportunities (more information in the 'background section') may be material issues to the company?
 - Address biases in data
 - Address power dynamics and lack of diversity in AI
 - Catalyze education and research for responsible AI
 - A materiality assessment that gathers inputs from stakeholders and experts while considering impact of the core business is an important place to start.
 - Develop an action plan and build it into the team's strategy, while tracking, measuring, and evaluating progress over time.

Tools:

['Quick win' case study to educate staff on bias in AI](#) (EGAL)

Examples & leaders:

Address biases in data: In 2006 the Northwest Area Foundation funded the Cheyenne River Tribal Ventures Voices Research Project – staffed mostly by tribal members – to help the tribe collect more accurate socio-economic data. The team, working with Colorado State University researchers, identified and filled critical data gaps related to informal economic sectors that federal data missed.¹



Address power dynamics and lack of diversity in AI: Most large technology companies have CSR and/or sustainability teams that are advancing DEI in the STEM pipeline. Two examples:



- **AWS Educate**, is Amazon’s global initiative to provide students with resources for building skills in the cloud. Free content builds cloud computing skills used in fields such as AI and voice / facial recognition. Content is geared towards K-12 students as well as adult learners – with special features for veterans. It has a job board to connect job seekers to companies hiring for cloud skills. AWS Educate is used in more than 200 countries/territories with hundreds of thousands of students.²



- **Google.org** gives grants to organizations that advance access to computer science (CS) education. Examples of funded organizations include 4-H to bring more computer science to America’s rural youth, and Code.org to create platforms and programs for people globally to learn code.^{3 4} Also, **Code with Google** includes free CS curriculum and programs for educators to build coding skills.⁵

Catalyze education and research for responsible AI: In 2017, Mozilla Foundation – in partnership with other organizations – launched the **Responsible Computer Science Challenge** awarding grants to embed ethics



into undergraduate computer science education. UC Berkeley, under the leadership of Professors Cathryn Carson and James Demmel, received a grant to integrate a “Human Contexts and Ethics Toolkit” into the CS/data science curriculum to help students “discover when and how their work intersects with social power structures” (including, for example: bias in data collection and algorithmic decision making).⁶

Background:

1. Address biases in data

Data (and the lack of data in some contexts) reflects historical and current inequities and can result in biased datasets which are then train and feed into algorithms (as explained in **EGAL’s Playbook**). Biased datasets happen because:

- *Raw data does not exist for certain communities.* Communities / people have less access to technological tools that generate / collect data⁸ or live on big data’s margins.⁹
- *Data exists but is biased* in that it is of poor quality for certain groups or populations, or have social bias and prejudice built in.
- *Individuals or groups that are generating data make choices on what data to collect and how.* Data reflects the choices / priorities / prejudices of data creators and dataset developers.

CSR opportunities in this area include:

- ✓ **Enhance digital inclusion** for communities or groups, particularly for those in areas or regions that the organization targets in its business operations. Enhancing digital inclusion requires more than just provision of technological tools and can come with potential unintended consequences. Ensure respect for privacy and safety considerations of individuals.¹⁰
- ✓ **Create a plan to address the inequities faced by certain identities in a sector / area of society.** Training data can be biased because it reflects societal bias. Reducing this bias requires addressing related social inequities and investing in a more just society. If a firm is building an AI system for predictive policing, for example, how can a CSR team develop a strategy to help address disparities in policing practices and other practices that have led to higher arrests and incarceration rates for African Americans?
- ✓ **Empower participatory data creation.** In filling data gaps, it’s important to think about who decides what data is collect and how, who interprets what it means for the community, and who governs it. CSR teams and philanthropists can enable communities to collect and control their own data such as through funding community researcher partnerships. In this, communities are key partners defining the research questions, while helping collect and analyse data.¹¹
- ✓ Beyond funding community data projects, **practice data justice in your own grant giving.** Add requirements for collaborative, community participation in data collection to grant guidelines; and enhance reliance on qualitative data that can be more accurate in conveying lived experience and context. Ensure communities are research partners as opposed to the subjects.¹²

2. Address power dynamics & lack of diversity in AI

Efforts are needed to diversify the AI landscape. Play 1 on diverse, multidisciplinary teams outlines efforts that companies can take to enhance diversity in the organization. CSR teams play an important role to help through, for example:¹³

- ✓ **Develop and/or fund an initiative to inspire diverse future engineers and data scientists.** This can be done in partnership with other programs (e.g., [CODE2040](#), [Black Girls Code](#)).
- ✓ **Promote STEM and AI education for girls and underrepresented communities.** This can take a variety of forms, such as supporting local schools or having staff tutor students – particularly students of color and/or girls as part of an employee volunteer program.
- ✓ **Highlight and share stories from women and underrepresented employees with the organization and community/ies more broadly.**

3. Catalyze education, research and partnerships for responsible AI

Education needs a revamp. Ethics and social sciences are desperately needed for data and computer science majors to mitigate biases. Business school students also need to understand challenges around bias and fairness tradeoffs in core courses related to data science and AI. Also, research is needed on challenges and solutions to advance “responsible AI”, as well as diversity, equity and inclusion (DEI) in AI. CSR teams can catalyze needed change in the education system and support research by:

- ✓ **Make grants to update education systems** to embed ethics / responsible AI in university education related to data science and AI –for engineers and data scientists, as well as business students. Education to support social science disciplines for jobs in the technology sector is important too¹⁴ – such as integrating introductory data science into humanities’ core curriculum.
- ✓ **Invest in research opportunities and partnerships to advance DEI in AI¹⁵**, as well as advance knowledge around responsible AI. Prioritize research teams that include underrepresented and multi-disciplinary groups, as well as research driven by communities themselves.¹⁶
- ✓ **Build, support and fund partnerships to advance responsible AI across stakeholders.**

Lastly, CSR teams can play an important role to advance responsible AI internally, such as through helping manage education internally on bias and fairness in AI. CSR teams have different priorities and metrics for success that can make them great partners to advance such efforts – given they have the necessary commitment and trust from engineering leaders, as well as power to get stakeholders to meaningfully engage and participate. They also are able to work across the company and, even broader, across industry.

This play is part of [Mitigating Bias in AI: An Equity Fluent Leadership Playbook](#) of the Berkeley Haas Center for Equity, Gender and Leadership. It was written by Genevieve Smith with input from Ishita Rustagi.

Endnotes

- 1 Lief, L. (2020). How philanthropy can lead on data justice. Social Stanford Innovation Review. Retrieved from https://ssir.org/articles/entry/how_philanthropy_can_help_lead_on_data_justice.
- 2 AWS Educate home. AWS. Retrieved on April 7, 2020 from <https://aws.amazon.com/education/awseducate/>.
- 3 Our work: Education. Google.org. Retrieved on April 7, 2020 from <https://www.google.org/our-work/education/>.
- 4 Organizations we support. Google. Retrieved on April 7, 2020 from https://edu.google.com/computer-science/organizations-we-support/?modal_active=none.
- 5 Every student deserves the chance to explore, advance and succeed in computer science. Google. Retrieved on April 7, 2020 from https://edu.google.com/code-with-google/?modal_active=none&story-card_activeEl=enhance-any-subject.
- 6 Responsible computer science challenge: Winners. Mozilla Foundation. Retrieved on April 7, 2020 from <https://foundation.mozilla.org/en/initiatives/responsible-cs/winners/>.
- 7 Nkonde, M. (2019). Is AI bias a corporate social responsibility issue. HBR. Retrieved from <https://hbr.org/2019/11/is-ai-bias-a-corporate-social-responsibility-issue>.
- 8 (2017). A call to action for gender equality and women’s economic empowerment. UN High Level Panel on Women’s Economic Empowerment.
- 9 Williams, A., Brooks, C. & Shmargad, Y. (2018). How algorithms discriminate based on data they lack: Challenges, solutions and policy implications. *Journal of Information Policy*, 8, 78-115.
- 10 Additional suggested resources on the digital divide and guidance for action include: Bridging the gender digital divide (OECD) and Digital inclusion resources (International Telecommunication Union (ITU) of the United Nations).
- 11 (2012). Comments submitted by the National Congress of American Indians. National Congress of American Indians. Retrieved from http://www.ncai.org/policy-research-center/initiatives/NCAI_Comments_to_the_AIPLF_Report.pdf.
- 12 Lief, L. (2020). How philanthropy can lead on data justice. Social Stanford Innovation Review. Retrieved from https://ssir.org/articles/entry/how_philanthropy_can_help_lead_on_data_justice.
- 13 Colby, S., Ma, H., Robinson, K. & Yee, L. (2016). What will it take to make the tech industry more diverse. HBR. Retrieved from <https://hbr.org/2016/03/315-global-digital-ic-diversifying-the-tech-industrys-talent-pipeline>.
- 14 Schiebinger, L. (January 20, 2020). Personal interview.
- 15 For specific research ideas around AI and gender diversity, see – AI and Gender: Four Proposals for Future Research. For AI and people with disabilities see -- and Toward Fairness in AI for People with Disabilities: A Research Roadmap).
- 16 Kuhlman, C., Jackson, L. & Chunara, R. (2020). No computation without representation: Avoiding data and algorithm bias through diversity. Cornell University (submitted). Retrieved from <https://arxiv.org/pdf/2002.11836.pdf>.