



October 1, 2021

National AI Research Resource Task Force
Attn: Ms. Wendy Wigen, NCO, NITRD Program
2415 Eisenhower Avenue
Alexandria, Virginia 22314

Re: Request for Information and Comment on a National Artificial Intelligence Research Resource

Dear Members of the National AI Research Resource Task Force:

Consumer Reports (CR) writes today in response to the Request for Information and Comment on a National Artificial Intelligence Research Resource. Consumer Reports is an expert, independent, non-profit organization whose mission is to work for a fair, just, and safe marketplace with and for all consumers and to empower consumers to protect themselves.¹ We applaud the The Office of Science and Technology Policy and the National Science Foundation creating a shared research infrastructure that would provide artificial intelligence (AI) researchers and students across scientific disciplines with access to computational resources, high-quality data, educational tools, and user support. Smaller companies, academics, and public-interest researchers do not always have the resources to develop larger and more complicated AI models — NAIRR should prioritize providing things like cloud storage and computing capacity to these groups. Democratizing AI can not only lead to more fair outcomes for affected populations but also can mitigate harm done by biased or otherwise detrimental algorithms.

Technology that uses AI has the potential to discriminate across a wide variety of sectors and applications. Our concerns about the use of AI are not unique to technology. They are about fairness. AI, when training data is biased, or when algorithms are flawed due to human biases, can reproduce and further entrench existing harms, or create new ones. As AI becomes more integrated

¹ CR works for pro-consumer policies in the areas of financial services and marketplace practices, antitrust and competition policy, privacy and data security, food and product safety, telecommunications and technology, travel, and other consumer issues in Washington, DC, in the states, and in the marketplace. Consumer Reports is the world's largest independent product-testing organization, using its dozens of labs, auto test center, and survey research department to rate thousands of products and services annually. Founded in 1936, Consumer Reports has over 6 million members and publishes its magazine, website, and other publications.

into everyday products and daily life, it is important that its development be democratized and accessible to all in order to mitigate harmful effects.

Discrimination in algorithms is a serious concern and has the potential to erode much of the progress made by U.S. civil rights law. There are many sources of bias in algorithms, but a significant way algorithms produce discriminatory outputs is due to biases that stem from societal inequities. For example, Black communities tend to be overpoliced so a disproportionate percentage of crime data is collected from these communities; when an algorithm is designed to predict where crimes occur more often in a particular city in order to better allocate policing resources, for instance, it could point to the Black communities that are already being heavily policed.² There are many other sources of biases in algorithms during the design process including other biased data collection methods, the specific type of model being used, as well as the attributes of the data the engineer chooses as being important to the final outcome.

It is important that inclusive datasets that more fully represent the populations the algorithm is trying to make predictions or classifications for are available to the public. Often, private companies, particularly smaller ones, do not have the resources to perform proper data collection and must resort to open-source databases that tend to be of lower quality or incomplete. Also, public-interest researchers attempting to audit or reverse engineer potentially harmful algorithms are not able to do so without higher-quality training data.

NAIRR can mitigate this issue by partnering with private companies who have more complete datasets to provide data to the public, or sourcing data from different locations and testing it to ensure completeness and accuracy before making it publicly available. Furthermore, NAIRR should be testing the data across different dimensions like protected classes like race, gender, etc. to ensure these demographics are adequately represented and provide markers to their datasets when they are not. They should also release guidelines for how to test for completeness in training data and for what applications this would be particularly useful or necessary. Finally, they should also allow for the public to contribute to these datasets; treating datasets as an open-sourced tool can democratize the AI development process and encourage competition when smaller companies or individuals are able to get access to robust and high-quality data.

AI educational tools are necessary when developing fair and inclusive technology. Responsible research and ethics are not always at the forefront of early-stage companies, and providing resources that can help companies think through complex social issues is vital when mitigating AI harm and maximizing its benefits. NAIRR should also perform research on and release guidelines regarding the potential misuse or misapplication of AI. For example, the use of pseudoscience and physiognomy are on the rise in AI applications; some companies claim that their AI can do things

² O'Donnell, Renata M. "Challenging Racist Predictive Policing Algorithms Under the Equal Protection Clause," *NYU Law Review*, 2019, <https://www.nyulawreview.org/wp-content/uploads/2019/06/NYULawReview-94-3-ODonnell.pdf>.

that are not necessarily possible or substantiated by science.³ NAIRR should make clear why certain uses of AI are harmful and/or misleading to discourage companies from creating these sorts of models. This research should be done in conjunction with social scientists, AI researchers and ethicists, and civil rights groups. Research should also focus on privacy-protecting methods that allow for careful examination of how civil rights can be potentially impacted by AI without disclosing anyone's personal information.

Transparency is an important tool that NAIRR should be encouraging builders of AI technology to leverage in order to mitigate harm. NAIRR should perform research on algorithmic impact assessments and provide guidance on how companies should be testing for bias and reporting it to appropriate parties. This includes disclosure of data used in the algorithm, an explanation of how the algorithm works, the steps the company took to test for disparate impacts, and how they mitigated harmful effects if identified. NAIRR should also perform research on auditing techniques and release guidelines for potential third-party auditing. This includes information like what sorts of algorithms should be subject to an audit, how that audit should be carried out and what entities can perform it, and what kinds of information companies should give to auditors to perform a successful audit; this may entail working with other agencies and/or private auditing groups to provide some sort of accreditation process for audits. Transparency should also be integral to NAIRR itself. All research done by NAIRR and all partnerships and stakeholders for any NAIRR project should be disclosed to the public. NAIRR should primarily be focused on researching AI that is beneficial to the public and strategies to mitigate or avoid harm.

We are excited about this new initiative and thank OSTP and the NSF for creating this task force. While AI has the potential to do good, its potential harms are severe and can infringe on Americans' civil rights. Our suggestions can help ensure that AI research and development becomes more democratized which will mitigate harm caused by this emerging technology. Thank you for your consideration.

Sincerely,
Nandita Sampath
Policy Analyst

³ Narayanan, Arvind. "How to Recognize AI Snake Oil."
<https://www.cs.princeton.edu/~arvindn/talks/MIT-STS-AI-snakeoil.pdf>