June 30, 2022

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

Re: Request for Information Implementing Initial Findings and Recommendations of the National Artificial Intelligence Research Resource Task Force

Dear Members of the National AI Research Resource Task Force:

Consumer Reports (CR) writes today in response to the Request for Information Implementing Initial Findings and Recommendations of the National Artificial Intelligence Research Resource Task Force. 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. This is important not just for AI advancement, but also provides researchers with the tools to identify and call-out harm that can be caused by AI. 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

[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.

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

Vision for the NAIRR

While providing computing resources to researchers and small businesses is a worthy goal, we primarily advocate for NAIRR being an ethical resource that sets industry standards for best practices. We recommend that NAIRR should work with other federal agencies that enforce civil rights law to release guidelines on how industry should go about designing, testing, and deploying algorithms in different sectors to mitigate harm. Currently, there is a lack of industry standards in terms of quality of training data, privacy protections to mitigate identification of individuals that could be identified by data, accuracy rates of algorithms prior to deployment, testing and maintenance of algorithms, and requirements for independent auditing of algorithms (particularly ones with sensitive applications). These are all areas that AI researchers, companies, and the public could benefit from more guidance. AI has the potential to roll back much of the civil rights protections that have been afforded to us, and providing computational and data resources to researchers and companies on its own will not solve this problem. We will elaborate what we hope to see NAIRR contribute to AI standards and ethics in the following sections.

NAIRR resource elements and capabilities

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 perform research on and release guidelines regarding the potential misuse or misapplication of AI, preferably in conjunction with other federal agencies that enforce civil rights law. We applaud the interim report particularly for "*Recommendation 4-8: The NAIRR should establish a value ecosystem around data that can be used for 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 that are not necessarily possible or substantiated by science.[2] NAIRR should make clear why certain uses of AI are harmful 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

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

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 independent 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.

Privacy, civil rights, and civil liberties requirements

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.[3] 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,

[3] 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.

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.

However, combining datasets from different sources and ensuring that datasets are comprehensive across different demographics could lead to an erosion of privacy since data can be used to point to specific individuals. It is important that NAIRR takes this into account when providing data to the public or researchers; processes should be put in place to de-identify and anonymize data to the extent possible and only provide researchers with data necessary to complete their projects.

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; and, we hope this initiative can be used to provide much needed guidance for ethical standards in industry. Thank you for your consideration.

Sincerely,
Nandita Sampath
Policy Analyst