RECOMMENDATIONS: Enhancing AI Literacy for the United States of America

National Artificial Intelligence Advisory Committee (NAIAC)

November 2023

Recommendation 1:

Create a National AI Literacy Campaign that fosters national AI literacy.

Based on the findings in the below "Context" section, a National AI Literacy Campaign should prioritize community college, university, non-traditional students, the workforce, individuals within underrepresented communities, and adults in roles who are most likely to be displaced by AI as aligned with <u>EO 13985</u>.¹ To make this recommendation actionable and executable in the short term, this campaign should both empower communities with adequate access to resources and leverage existing frameworks. This campaign would serve as a global example in AI literacy and allow local leaders in the U.S. to create and execute AI literacy programs to meet the specific needs of their communities.

Recommendation 2:

Leverage the Biden Administration's digital equity campaign as a framework to create a National AI Literacy Campaign.

The ultimate goal is to encourage and support NGOs interested in creating a National AI Literacy Campaign to meet the needs of their communities. Specifically:

- The National AI Literacy Campaign should be a public/private partnership between industry leaders, federal government agencies, and non-governmental organizations (NGOs).
- The campaign should encourage industry partners to voluntarily commit to investing in non-product specific AI literacy programs, and/or providing resources for qualified NGOs and other qualified non-profit (i.e. 501c3) organizations to develop AI literacy programs at the local level.
- The campaign should also include a voluntary commitment from federal agencies to reclassify federal grants to include AI literacy. The reclassification should enable AI literacy designated grant funds to be made available for qualified NGOs and other qualified non-profit (i.e. 501c3) organizations from

¹ The United States Government. (2023, February 16). Fact sheet: President Biden signs executive order to strengthen racial equity and support for underserved communities across the Federal Government. The White House.

https://www.whitehouse.gov/briefing-room/statements-releases/2023/02/16/fact-sheet-president-bidensigns-executive-order-to-strengthen-racial-equity-and-support-for-underserved-communities-across-th e-federal-government/

the Department of Commerce, SBA, Department of Veteran Affairs, and others.

- Launch a centralized website and mobile application (app) to maintain a single source for initiatives and resources for NGOs to leverage. This website and app can catalog existing opportunities and serve as a starting point for individual citizens, NGOs, and academic institutions that are investing in Al literacy programs.
- Establish an AI Literacy Fund modeled after the Universal Services Fund and dedicated to fulfilling the goals of the National AI Literacy Campaign. The funds could be voluntarily committed by organizations developing or deploying AI solutions. Alternatively, request that Congress consider revenue-raising measures focused on AI literacy initiatives.

Recommendation 3:

Invest in formal educational or existing learning frameworks to advance the AI literacy of the American population.

Partner with state-level authorities to support school districts, educational service agencies, college associations, and university systems to help develop, promote, and advance AI literacy within the traditional structured educational pathways. This approach will target K12 populations and students pursuing higher education, such as community colleges, four-year degrees, advanced degrees, and non-traditional students, while advancing existing local educational curricula.² Specifically:

- Collaborate with professional associations such as the <u>American Medical</u> <u>Association, National Association of Social Workers</u>, and <u>American Bar</u> <u>Association</u> to integrate AI literacy into licensure and continuing education requirements, ensuring that professionals across industries possess skills necessary for the future. Engaging with these associations can help close the awareness gap for individuals in industries that are not directly technology related.
- Recommend that labor unions, such as the <u>AFL-CIO</u>, require AI literacy training in their contract negotiations with the industry and contribute their unique insights into reskilling opportunities.

² The group considered resources provided through a variety of organizations: <u>American Association of</u> <u>Community Colleges</u>, <u>Aledu.org</u> and <u>teachAl.org</u>, MIT, Berkeley, <u>Connected Learning Initiative</u>, <u>Al</u> <u>learning Alliance</u>, <u>Deep Learning Institute</u>, <u>Samsung Innovation Campus</u>, among others. This acknowledgement is not an endorsement of specific organizations or approaches.

"Even though we are AI-focused, we also work with many industry-based communities, such as marketing and healthcare, in which practitioners lack an AI background. By collaborating, we can solve shared challenges — for instance, in addressing healthcare challenges using AI. By doing so, we can exchange resources and combine industry and technology expertise."

—Bhuva Shakti, Women in Al, NAIAC Briefing Session 3, June 27, 2023

Recommendation 4:

Invest in informal learning opportunities such as standalone public sessions, social media campaigns, and public messaging efforts.

Specifically:

- Partner with independent media and cultural institutions such as non-profits, museums, broadcast stations, and public libraries to create educational content and experiences that reach a wide audience. Several organizations internationally can provide expertise.³
- Partner with and enable various stakeholders, including civil society organizations representing underserved populations, individuals with disabilities, and veterans. These groups provide robust networks across the U.S. with facilities and resources connected to local communities.⁴

Additional Considerations

A National AI Literacy Campaign must consider campaign content creation, barriers to engagement, and potential funding sources.

<u>Campaign content:</u> A National AI Literacy Campaign must develop (1) baseline awareness of the technology and (2) specific competencies that enable individuals to actively engage with AI tools, and new opportunities. These competencies may

³ The group considered resources provided through a variety of organizations including University of Helsinki 2018, <u>NPR</u>, <u>PBS</u>, <u>Smithsonian</u>, and <u>Public Libraries</u>. This acknowledgement is not an endorsement of specific organizations or approaches.

⁴ The group considered resources including <u>NPR</u>, <u>PBS</u>, <u>Smithsonian</u>, and <u>Public Libraries</u>. This acknowledgement is not an endorsement of specific organizations or approaches.

include both existing and net new skills. Existing skills are currently in the market and have educational pathways tied to them. Net new are emerging skills that do not have defined educational pathways.

<u>Barriers to engagement:</u> Members of the campaign audience may find engaging with AI literacy initiatives difficult due to a lack of awareness of new technologies, especially in underrepresented communities, or a lack of internet access. Approximately 20% of American households continue to lack internet access at home.⁵ Both online and offline initiatives should be considered, helping to prevent further internet access disparities. To address these concerns, the government should continue to engage with civil rights and advocacy groups to bring diverse perspectives and help extend AI education to underserved populations.

In summary, current "Digital Literacy" investments include training on basic internet use and education on specific tools related to the sponsoring company supporting NGOs. However, they do not adequately address the needs of "AI Literacy." There is insufficient investment in AI literacy to educate communities about AI fundamentals, including the benefits and risks of AI in daily life.

Existing initiatives and programs specific to AI, STEM, and Technology can be used to aid in identifying campaign partners. These programs can be found both domestically and globally. While the experiences of other countries tasked with similar challenges regarding AI literacy may not directly apply to the United States due to cultural contexts, the lessons learned may be valuable nonetheless.

CONTEXT

Importance of AI Literacy: Definitions

As Artificial Intelligence (AI) continues to dominate public discourse, more questions arise about the preparedness of the American public to understand, embrace, trust or adapt to an AI-infused world. In particular, the topic of AI literacy (also referred to as AI-preparedness)⁶ is receiving growing attention. There are several working definitions for AI literacy:

⁵ Cao, M., & Goldberg, R. (2022). *Switched off: Why are one in five U.S. households not online?* National Telecommunications and Information Administration. <u>https://www.ntia.gov/blog/2022/switched-why-are-one-five-us-households-not-online</u>

⁶ Lee, J., & Park, J. (2023, August 12). *Ai as "another I": Journey Map of working with Artificial Intelligence from Ai-Phobia to ai-preparedness*. Organizational Dynamics. https://www.sciencedirect.com/science/article/pii/S0090261623000384#sec0010

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- A set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace.⁷
- The ability to use, monitor and critically evaluate AI output. AI literacy does not require the ability to create AI tools.⁸
- Additional definitions for AI literacy are in progress.⁹

For the purpose of this document, AI literacy is defined by a basic understanding of the benefits, risks and opportunities of AI and how it impacts daily lives. We have a particular interest in the impacts on underrepresented communities. Most working definitions of AI literacy focus on baseline knowledge and skills needed to identify, understand, and interact with AI responsibly and effectively, not necessarily developing technical AI expertise.¹⁰ Importantly, AI literacy also implies an awareness of AI and the ability to correctly identify instances of AI usage. Awareness of AI is a prerequisite to the effective ability to understand risks and benefits, make informed decisions about AI technologies, and navigate ethical considerations.¹¹

Importance of AI Literacy: Impact of AI Literacy on Public Sentiment

Across all major demographic groups, Americans are increasingly more concerned than excited about AI (52% in August 2023 vs 38% in December 2022).¹² Americans are also among the populations least trusting of technology.¹³ In multiple studies,

⁷ Long, D., & Magerko, B. (2020). What is AI literacy? competencies and design considerations. Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems. <u>https://doi.org/10.1145/3313831.3376727</u>

⁸ Adapted from Long, D. & Magerko, B. (2020). "What is AI literacy? Competencies and design considerations. *CHI '20: Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1-16. <u>https://doi.org/10.1145/3313831.3376727</u>

⁹ UNESCO. (2023, June). Definition of algorithm literacy and data literacy Call for contributions. *UNESCO*. Retrieved September 28, 2023, from

https://www.unesco.org/sites/default/files/medias/fichiers/2023/06/Definition-of-algorithm-data-literacy-UNESCO-call-for-contributions-en.pdf

¹⁰ Leung, J. K., Chu, S. K., & Qiao, M. S. (2021). Conceptualizing ai literacy: An exploratory review. *Computers and Education: Artificial Intelligence*, *2*, 100041. <u>https://doi.org/10.1016/j.caeai.2021.100041</u>

¹¹ Crabtree, M. (2023, August 8). *What is Ai Literacy? A comprehensive guide for beginners*. DataCamp. <u>https://www.datacamp.com/blog/what-is-ai-literacy-a-comprehensive-guide-for-beginners</u>

¹² Tyson, A., & Kikuchi, E. (2023, August 28). *Growing public concern about the role of artificial intelligence in Daily Life*. Pew Research Center.

https://www.pewresearch.org/short-reads/2023/08/28/growing-public-concern-about-the-role-of-artificial-intelligence-in-daily-life/

¹³ Edelman Trust Barometer. (2022). (rep.). 2022 Edelman Trust Barometer Special Report: Trust in Technology. Retrieved September 28, 2023, from

https://www.edelman.com/sites/g/files/aatuss191/files/2022-10/2022%20Trust%20Barometer%20Special%2 OReport_Trust%20in%20Technology%20Final_10-19.pdf

potential job loss, misinformation, and fundamental change to American society were cited as reasons for concern.¹⁴ Lack of AI literacy may be one cause of this growing concern.^{15 16 17} Only 30% of respondents can correctly identify common uses of AI, and 44% do not believe that they interact with AI regularly (both are indicators of awareness).^{18 19} Several studies suggest that while AI is becoming more prevalent, there is still a gap in understanding and awareness of AI in daily life.²⁰ This is a particularly acute issue in underrepresented communities where the threat of harm is heightened.²¹ Only 15% of Black and 23% of Hispanic Americans have a high level of awareness of AI in their daily lives (compared to 34% and 40% for White and Asian Americans). Forty-seven percent of Black Americans and 39% of Hispanic Americans have a low awareness of AI applications in daily life (compared to 28% and 21% for White and Asian Americans). Consequently, these communities will become increasingly less able to make informed choices about how AI affects their well-being.

"It is challenging to have reasoned conversations about the risks and harms of AI, because many lack the knowledge to participate in informed discourse about this technology."

—Gelyn Watkin, Black In Al, NAIAC Briefing Session 3, June 27, 2023

¹⁶ King, S. (2023, September 6). *2023 trust in AI survey*. Krista AI. <u>https://krista.ai/ai-trust-survey-2023/</u> ¹⁷ Tyson, A., & Kikuchi, E. (2023, August 28). *Growing public concern about the role of artificial intelligence in Daily Life*. Pew Research Center.

https://www.pewresearch.org/science/2023/02/15/public-awareness-of-artificial-intelligence-in-everydayactivities/

National Artificial Intelligence Advisory Committee (NAIAC) | <u>https://www.ai.gov/naiac/</u>

¹⁴ Jackson, C. (2023, May 4). Americans hold mixed opinions on AI and fear its potential to ... - ipsos. Americans hold mixed opinions on AI and fear its potential to disrupt society, drive misinformation. <u>https://www.ipsos.com/en-us/americans-hold-mixed-opinions-ai-and-fear-its-potential-disrupt-society-d</u> <u>rive-misinformation</u>

¹⁵ Gillespie, N., Lockey, S., Curtis, C., Pool, J., & Akbari, A. (2023). Trust in Artificial Intelligence: A Global Study. The University of Queensland and KPMG Australia. doi:10.14264/00d3c9

https://www.pewresearch.org/short-reads/2023/08/28/growing-public-concern-about-the-role-of-artificial-intelligence-in-daily-life/

¹⁸ Kennedy, B., Tyson, A., & Saks, E. (2023, February 15). *Public awareness of artificial intelligence in Everyday Activities*. Pew Research Center.

¹⁹ See Kennedy and King

²⁰ See Gillespie and Ipsos

²¹ Wille, B., & Jacobsen, K. L. (2023, July 7). *The data of the most vulnerable people is the least protected.* Ada Lovelace Institute.

https://www.adalovelaceinstitute.org/blog/data-most-vulnerable-people-least-protected/

If the public awareness and understanding of AI literacy is not increased and prioritized, the U.S. is likely to experience an exacerbated digital divide and create an **AI divide** with a detrimental effect on the American workforce and US economy.^{22 23}

AI Literacy and the Workforce

Al is shifting the skills in demand within the workforce.²⁴ Recent studies show that 80% of the U.S. workforce will have some tasks affected by language models, and 20% are expected to see at least half of daily tasks affected by Al. Black American workers are at a higher risk of being impacted by automation since they are more often employed in support roles compared to the general population.²⁵ Other roles such as traditional security, factory and commerce roles are expected to decrease in demand with some jobs going extinct entirely.²⁶ Some estimates show that 20% of jobs are at risk of automation by the late 2020s, and around 30% by the mid-2030s.²⁷ Al automation is expected to benefit higher-educated individuals and harm less well-educated workers, potentially further exacerbating income disparities between demographics.²⁸ These statistics are feeding into the workforce sentiment around Al. Approximately 54% of managers/senior decision-makers feel optimistic about Al improving their jobs while employees are nearly two times as likely to think Al will hurt their jobs (19% vs 11%).²⁹

"Many of the fears we hear from our community members center on the concern that their jobs will be automated: in particular,

https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/PDF/future-of-work-report -ai-august-2023.pdf

²² Trucano, M. (2023, July 10). *Ai and the next digital divide in Education*. Brookings. <u>https://www.brookings.edu/articles/ai-and-the-next-digital-divide-in-education/</u>

²³ Pahl, S. (2023, February). *An emerging divide: Who is benefiting from Al*?. Industrial Analytics Platform. <u>https://iap.unido.org/articles/emerging-divide-who-benefiting-ai</u>

²⁴ Kimbrough, K., Erer, M., Kaura, A., Raghavan, S., & Carpanelli, M. (2023). (rep.). *Future of Work Report: Al at Work*. LinkedIn. Retrieved September 28, 2023, from

²⁵ Eloundou, T., Manning, S., Mishkin, P., & Rock, D. (2023). Gpts are gpts: An early look at the labor market impact potential of large language models. *arXiv preprint arXiv:2303.10130*

And Baboolall, D., Pinder, D., Stewart, S., & Wright, J. (2018a, November 14). *Automation and the future of the African American workforce*. McKinsey & Company.

https://www.mckinsey.com/featured-insights/future-of-work/automation-and-the-future-of-the-africanamerican-workforce

 ²⁶ Zahidi, S. (2023). (rep.). *Future of Jobs Report 2023 INSIGHT REPORT*. World Economic Forum.
Retrieved September 28, 2023, from https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf
²⁷ Hawksworth, J., Berriman, R., & Cameron, E. (2018). (rep.). *Will robots really steal our jobs?* PwC.
Retrieved September 28, 2023, from

https://www.pwc.co.uk/economic-services/assets/international-impact-of-automation-feb-2018.pdf ²⁸ Hawksworth, J., Berriman, R., & Cameron, E. (2018). (rep.). *Will robots really steal our jobs?* PwC. Retrieved September 28, 2023, from

https://www.pwc.co.uk/economic-services/assets/international-impact-of-automation-feb-2018.pdf ²⁹ See King

jobs that entail manual labor are potentially ripe for automation and replication by AI tools."

—Laura Montoya, LatinX in AI, NAIAC Briefing Session 3, June 27, 2023

Exaggerating the workforce impact is the growing skills gap. As more jobs are automated, experts predict a growing need for AI experts, both technical and non-technical in nature. However, the necessary talent is not available. More than 51% of companies report lack of skilled AI talent to fulfill growing AI jobs³⁰ and a growing AI skills gap.³¹ Government agencies and non-profit organizations report similar circumstances.³² This includes STEM and non-STEM roles that are impacted by the technology. Moreover, within the existing talent, there is a significant diversity gap. Within organizations developing AI solutions, only 27% identify as women and 25% as racial and ethnic minorities.³³ Our findings support the conclusion that there is a need for developing basic AI skills and capabilities that will be most useful and marketable in an AI-infused world, with an emphasis on those persons in jobs most likely to be displaced.

Al Literacy and Mental Health

Lack of AI literacy is also impacting mental health, known as "AI Anxiety," and has negative psychological impacts.³⁴ Concerns about job stability and workforce displacement harm employee mental health and contribute to burnout and anxiety. Workers under the age of 58, people of color and individuals with a high school education are disproportionately worried about the impact of AI, which aggravates their mental health concerns.³⁵

https://www.snaplogic.com/resources/infographics/ai-skills-gap-research

³⁰ Behles, S. (2022, June 24). *The Ai Skills Gap*. SnapLogic.

³¹ McKendrick, J., & Shin, M. (2023, March 6). *More skills are needed to help AI plug skills gaps*. ZDNET. <u>https://www.zdnet.com/article/more-skills-needed-to-help-ai-plug-skills-gaps/</u>

³² Patterson, A. (2022, February 14). *Key efforts for building the Federal Ai Talent Pipeline*. governmentciomedia.com.

https://governmentciomedia.com/key-efforts-building-federal-ai-talent-pipeline

And Spalt, S. (2023, August 11). *Managing IT skill gaps in nonprofit organizations*. Cimatri. <u>https://cimatri.com/managing-it-skill-gaps-in-nonprofit-organizations/</u>

³³ Chui, M., Hall, B., Mayhew, H., Singla, A., & Sukharevsky, A. (2022, December 6). *The state of AI in 2022-and a half decade in Review*. McKinsey & Company.

https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2022-and-a-half-decade-in-review#talent

³⁴ Finextra. (2023, May 7). The psychological toll of ai: Erosion of empathy and trust in our relationships. Finextra Research.

https://www.finextra.com/blogposting/24174/the-psychological-toll-of-ai-erosion-of-empathy-and-trust-in-our-relationships

³⁵ American Psychological Association. (2023, September). 2023 work in America survey: Artificial Intelligence, Monitoring Technology, and psychological well-being. American Psychological Association. <u>https://www.apa.org/pubs/reports/work-in-america/2023-work-america-ai-monitoring</u>

"Fear of the unknown and loss of a sense of control are directly related to psychological distress, occupational stress, and strain, as well as negative physical health outcomes. Providing information about the use of AI and allowing employee input into such changes will significantly alleviate these outcomes."

— Leslie Hammer, Ph.D., emerita professor of psychology at Portland State University and co-director of the Oregon Healthy Workforce Center at the Oregon Health and Science University

Research shows that a stronger understanding of AI technology corresponds to a more positive outlook and attitude towards AI technology. Therefore, developing AI literacy within the U.S. may help address some AI anxiety.

AI Literacy and Misinformation, Disinformation, and Deep Fakes

Proliferation of AI introduces another risk, as AI-generated content is used for misinformation and disinformation. Research shows that AI-generated misinformation can contribute to political divides and interfere with political processes, exacerbate social divisions, undermine trusted sources of information, and contribute to deteriorating social trust in institutions and authorities.^{36 37 38} Misinformation has also been shown to target vulnerable populations disproportionately.

"In 2020, women of color were twice as likely as other candidates to be targeted by or subject to misinformation and disinformation. And the damage done is not limited to voting; it subverts democracy and erodes faith in institutions."

- Patrice Willoughby, NAACP, NAIAC Briefing Session 1, June 20, 2023

³⁶ Helmus, T. C. (2022). *Artificial Intelligence, Deepfakes, and Disinformation: A Primer*. <u>https://doi.org/10.7249/pea1043-1</u>

³⁷ Villasenor, J. (2022, March 9). *How to deal with ai-enabled disinformation*. Brookings. <u>https://www.brookings.edu/articles/how-to-deal-with-ai-enabled-disinformation/</u>

³⁸ Klepper, D., & Swenson, A. (2023, May 14). *Ai-generated disinformation poses threat of misleading voters in 2024 election*. PBS.

https://www.pbs.org/newshour/politics/ai-generated-disinformation-poses-threat-of-misleading-voters-in-2024-election

These misinformation campaigns are often effective due to the lack of awareness and understanding of how AI technology can be used to spread inaccurate, false and misleading information. Several organizations are researching technical and policy approaches to limit or counteract AI-driven misinformation.^{39 40 41} Additional efforts may be necessary to empower and equip individuals to identify misinformation online by increasing the awareness of ways AI is used for deep fakes and information generation.^{42 43 44 45}

AI Literacy and Data Sovereignty

Developing universal AI literacy will also foster self-determination and create opportunities for people to have meaningful power over their data, and how it is used, collected, and modified.⁴⁶ Currently, many AI systems are developed and trained on data that has been scraped from the internet.⁴⁷ While the data collection is covered under user agreements and terms of use, many individuals and journalists have expressed the sentiment that the consent was not informed or that alternatives were not available.⁴⁸ Even when companies implement options for users to opt out of data collection, many individuals lack awareness and understanding of how their data contributes to AI research and development.⁴⁹

National Artificial Intelligence Advisory Committee (NAIAC) | https://www.ai.gov/naiac/

³⁹ Kertysova, K. (2018). Artificial Intelligence and Disinformation: How AI Changes the Way Disinformation is Produced, Disseminated, and Can Be Countered. *Security and Human Rights*, 29(1-4), 55-81. <u>https://doi.org/10.1163/18750230-02901005</u>

⁴⁰ See Villasenor, J

⁴¹ See Helmus

⁴² Guess, A. M., Lerner, M., Lyons, B., Montgomery, J. M., Nyhan, B., Reifler, J., & Sircar, N. (2020). A digital media literacy intervention increases discernment between mainstream and false news in the United States and India. *Proceedings of the National Academy of Sciences of the United States of America*, *117*(27), 15536–15545

⁴³ Nicole M. Lee (2018) Fake news, phishing, and fraud: a call for research on digital media literacy education beyond the classroom, Communication Education, 67:4, 460-466, DOI: <u>10.1080/03634523.2018.1503313</u>

⁴⁴ Guess, A. M., Lerner, M., Lyons, B., Montgomery, J. M., Nyhan, B., Reifler, J., & Sircar, N. (2020). A digital media literacy intervention increases discernment between mainstream and false news in the United States and India. *Proceedings of the National Academy of Sciences*, *117*(27), 15536–15545. <u>https://doi.org/10.1073/pnas.1920498117</u>

⁴⁵ Kozyreva, A., Lewandowsky, S., & Hertwig, R. (2020). Citizens Versus the Internet: Confronting Digital Challenges With Cognitive Tools. Psychological Science in the Public Interest, 21(3), 103–156. <u>https://doi.org/10.1177/1529100620946707</u>

⁴⁶ NAIAC Briefing Session 1, June 20, 2023, Emily Chi, Asian Americans Advancing Justice

⁴⁷ Morrison, S. (2023, July 27). The tricky truth about how generative AI uses your data. Vox.

https://www.vox.com/technology/2023/7/27/23808499/ai-openai-google-meta-data-privacy-nope

⁴⁸ Fowler, G. A. (2023, September 8). *Analysis | your instagrams are training AI. There's little you can do about it.* The Washington Post.

https://www.washingtonpost.com/technology/2023/09/08/gmail-instagram-facebook-trains-ai/

⁴⁹ Vaughan-Nichols, S. (2023, August 30). *Meta uses your Facebook data to train its AI. Here's how to opt out (sort of)*. ZDNET.

"For communities, though, the first thing we generally need to discuss is data sovereignty — the protection of data [...] It's crucial for us. The community must come together to decide the parameters under which they might allow someone else to use their data; or under which they themselves would use their data. For us, that's often language data, and it's often very meaningful data. It's a very different kind of dataset than what most people train their models on: it's grandmas telling stories, not just tweets."

- Mason Grimshaw, Indigenous in Al, NAIAC Briefing Session 3, June 27, 2023

Effective AI literacy provides individuals with awareness of how their data is used to train AI and also enables reasonable self-determination about how it is used. This is viewed as positive for addressing fears and fostering trust, and it ultimately empowers individuals with a greater sense of control over AI than is currently reported.

Disclaimer: This non-decisional document has been drafted by Members of the National Artificial Intelligence Advisory Committee (NAIAC) for the purposes of explaining concepts and does not offer formal recommendations. The opinions discussed in this document do not represent the views of the full Committee and should not be considered a recommendation by the NAIAC.

APPENDIX

Stakeholders' Points of View

The National Artificial Intelligence Advisory Committee (Committee) held a series of virtual briefing sessions June 20-27, 2023, for leaders of marginalized communities to brief the Committee on topics of interest related to year-two efforts.⁵⁰ The briefing sessions provided an opportunity for invited experts to share their respective priorities and how these priorities may relate to Al.⁵¹ Attendees included leaders from civil society, leaders from disabilities, worker unions, human rights, and diverse Al leaders representing LatinX in Al, Black in Al, Queer in Al, Indigenous in Al, and Women in Al.

The following compilation of thoughts from the virtual briefing sessions highlight the AI literacy gaps, foreseeable needs, and potential impact.

Feedback from representatives from Civil Society leaders:

- Outreach should target underrepresented groups including Blacks, Hispanics, and Native Americans. Multiple pathways for Al awareness are needed.
- Literacy efforts must be multilingual and culturally tailored for diverse communities.
- Data protection and sovereignty are crucial when engaging minority groups to enable informed data decisions.
- Trusted community groups can provide education at the local level through in-person outreach, videos, gatherings and testimonials.

Feedback from representatives from people with disabilities:

- There is limited understanding of AI impacts among disabled communities. Education is needed on how to navigate AI systems.
- Hands-on learning can make AI more accessible. Showcasing real-world apps raises interest.
- Guidance is needed to determine if one has been subject to an AI decision, especially discrimination victims.

Feedback from representatives from Women's rights organizations:

- Data sovereignty enables informed decisions on data usage, which empowers women.
- Outreach through local events and partners would provide insights into women's AI concerns.

 ⁵⁰ National Artificial Intelligence Initiative Office. (n.d.). *The National AI Advisory Committee (NAIAC)*.
National Artificial Intelligence Initiative. <u>https://www.ai.gov/naiac/</u>
⁵¹ 88 FR 37208

• Eliminating gender biases in AI systems should be a priority. Women lack a presence in AI development.

Feedback from representatives from LGBTQ+ groups:

- Multimedia content and training materials can increase awareness of LGBTQ+ issues and AI harms.
- Guidance is needed to identify if discriminatory AI decisions have been made, especially for LGBTQ+ victims.

Feedback from representatives from the general public:

- Education is needed on AI basics, benefits, harms and impacts.
- Standardized documentation of company approaches to mitigating AI bias can inform future policies and guidance.
- Multifaceted collaboration is required for systematic AI literacy efforts.

Key takeaways from these listening sessions, as they pertain to the focus areas of this working group, include:

- The need for public education on AI basics, benefits and harms, identifying instances of AI discrimination and mitigating bias.
- Engaging underrepresented groups through local partners and community organizations to ensure representativeness and targeted outreach.
- Empowering people, especially people of color, to control how their data is used within AI systems to enable informed decisions and human agency.
- Systemic AI literacy efforts require collaboration between industry, the federal government, policymakers, community groups and the public, with a consideration for multi-modal or varied approaches that consider accessibility needs.

Based on the findings of the listening sessions, extensive research and experience of working group experts in industry, academia and the nonprofit sector, **we acknowledge the gap between awareness and understanding of the methods, uses, risks, and benefits of AI may have potentially deleterious effects on the U.S. economy, well-being of US citizens, and long-term global competitiveness.**

The good news is that despite moderate awareness, 73% of Americans report wanting to know more about AI.⁵² Additionally, a small sample survey of 250 AI researchers, developers, and decision-makers at US companies showed that 50% supported government curricula to promote AI skills and careers for youth.⁵³ The gap

⁵² Gillespie, N., Lockey, S., Curtis, C., Pool, J., & Akbari, A. (2023). Trust in Artificial Intelligence: A Global ⁵³ Ammanath, B., & Hirschmann, D. (n.d.). (publication). *Investing in trustworthy AI*. A report by the Deloitte AI Institute and Chamber Technology Engagement Center. Retrieved September 28, 2023, from <u>https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology/us-ai-institute-investing-intrustworthy-ai-full-report-new.pdf</u>

between AI awareness and understanding must be closed to increase U.S. citizens' baseline level of AI knowledge, especially in underserved communities. This cannot be successfully achieved by the federal government alone. A multi-pronged approach to engagement, education, and inclusion is needed. These needs will be well served through a robust AI literacy campaign that leverages communal expertise and multi-modal learning structures. The government is uniquely capable of convening the partners necessary for a holistic, multi-modal approach inclusive of government, industry, non-governmental organizations (NGOs), and academic contributions.

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ABOUT NAIAC

The National Artificial Intelligence Advisory Committee (NAIAC) advises the President and the White House National AI Initiative Office (NAIIO) on the intersection of AI and innovation, competition, societal issues, the economy, law, international relations, and other areas that can and will be impacted by AI in the near and long term. Their work guides the U.S. government in leveraging AI in a uniquely American way — one that prioritizes democratic values and civil liberties, while also increasing opportunity.

NAIAC was established in April 2022 by the William M. (Mac) Thornberry National Defense Authorization Act. It first convened in May 2022. It consists of 26 leading experts in AI across a wide range of domains, from industry to academia to civil society.

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