Mills Legal Clinic
Stanford Law School

Juelsgaard Intellectual Property and Innovation Clinic
Mills Legal Clinic
Stanford Law School
Crown Quadrangle
559 Nathan Abbott Way
Stanford, CA 94305-8610
jipic@law.stanford.edu
650.724.1900

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National Telecommunications and Information Administration

In the Matter of

AI Accountability Policy Request for Comment

Docket No. 230407-0093

Comments of Engine Advocacy

Juelsgaard Intellectual Property and Innovation Clinic

Phil Malone
Counsel for Commenters

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I. Introduction

Engine Advocacy is a non-profit technology policy, research, and advocacy organization that bridges the gap between policymakers and startups. Engine works with government and a community of thousands of high-technology, growth-oriented startups across the nation to support the development of technology entrepreneurship through economic research, policy analysis, and advocacy on local and national issues. Engine works with many startups that develop or leverage Artificial Intelligence ("AI") tools as part of their businesses and therefore has a strong interest in ensuring the United States adopts sound AI accountability policies that will help guide the sustainable development of this rapidly evolving technology.

AI generally describes a handful of machine-based systems that can make predictions, recommendations, or decisions for a given set of human-defined objectives.[1] Society stands to benefit greatly from the efficiencies that AI technology can bring, given that advanced data processing capabilities allow otherwise insurmountable or overly tedious tasks to be completed quickly and automatically. At the same time, it is critical that risks posed by the technology are mitigated. Engine believes it is important to remain mindful of this balance and to ensure that any AI accountability regulations are as specific and narrowly tailored as possible so that startups—both those who develop and deploy AI systems and those that use them in their products or services—will have clear guidance as to what is expected of them and will not encounter unnecessary or insurmountable regulatory burdens.

II. Startups Are Using and Developing AI for Beneficial Uses, Including Countering Bias

The rapidly increasing prevalence of AI has understandably raised concerns that AI decision-making tools might be used to reinforce existing societal biases.[2] These are important concerns, but policymakers should keep in mind that AI also can be leveraged for many beneficial uses, including to counteract historical biases. To do so, however, it is important to avoid overbroad regulations or definitions of "bias" that would hamper these efforts.

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[1] National Artificial Intelligence Initiative Act of 2020, 116th Cong. (2020).

[2] *See e.g.*, Obermeyer et al., Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations, SCIENCE (Oct 25, 2019), https://www.science.org/doi/10.1126/science.aax2342 (concluding that a predictive healthcare algorithm applied to over 200 million people reinforced bias against Black patients); Michelle Singletary, *Credit scores are supposed to be race-neutral. That's impossible.*, THE WASHINGTON POST (oct. 16, 2020), https://www.washingtonpost.com/business/2020/10/16/how-race-affects-your-credit-score/ (discussing similar issues in the context of credit scores).

Bias is a clear concern in the use of AI and it is important that "bias" is defined appropriately. Defining it too broadly such that it encompasses results that work against historical discrimination would be a mistake. If, for example, an admissions algorithm over-indexed admission of underrepresented students, or if an AI loan model over-indexed underwriting loans to marginalized communities, such a result should not necessarily be seen as "biased." Rather, it might be an active, positive step toward counteracting historical biases in society.

Definitions of bias must account for this possibility, especially since many startups from underrepresented communities are already developing bias-countering products using AI. For example, Camino Financial is a loan provider using novel data-driven AI models to give overlooked entrepreneurs access to the capital they need to build and grow their businesses. A large segment of Camino Financial's clients are shut out from most existing opportunities to access credit because they don't have a credit score, so the company built a credit model that collects broad information on a loan applicant's transaction history, facilitating a more holistic picture of the applicant's financial status.[3] This innovative approach has helped Camino Financial "achieve more equitable outcomes" and minimize the risk of bias in its loan application procedures.[4]

In another example from the healthcare space, New York City-based startup Noula Health has been leveraging a similar strategy to help women and Spanish-speaking patients receive a higher quality of care. The company offers basic at-home hormone testing and one-on-one coaching with health professionals at a relatively low cost. As the company explains on its website:

> "Noula was born out of a shared frustration with a healthcare system that has failed us repeatedly and in different ways. The more we talked to friends and family the more obvious it became that every woman and person with a uterus has experienced feeling dismissed, ignored, or disbelieved by our doctors. Instead of receiving care, we stopped trusting our providers, and worse, we started doubting ourselves."[5]

And, as Noula founder Noelle Acosta told Engine, one of the company's goals is to reach users who are members of groups that are traditionally underserved by the medical industry,

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[3] *#StartupsEverywhere Profile: Kenneth Salas, Co-Founder & COO, Camino Financial*, ENGINE (May 20, 2022), https://www.engine.is/news/startupseverywhere-losangeles-ca-caminofinancial.

[4] *Id.*

[5] *See* Noula, *About*, https://noula.com/about.

especially Spanish-speaking patients, which is why the company is planning to launch its service in Spanish.[6] Latina women suffer disproportionately in key reproductive health measures, including higher rates of maternal mortality and higher mortality rates from breast and cervical cancer, and they are less likely to receive regular mammograms and pap tests.[7] Noula seeks to counteract the disadvantages these women and its other users face by leveraging an algorithm that recommends tailored healthcare information to each user based on their medical data.[8]

Startups like Camino Financial and Noula Health are examples of startups that are building innovative algorithms that counteract and correct historical biases and persisting inequities present in society. AI accountability policies should be carefully designed to preserve their ability to do this important work.

III. Developing AI Technology is Extremely Costly and AI Regulation Should not Put it Further out of Reach for Startups

AI development inherently favors larger players with more capital to spend on collecting more data and compute power to improve their algorithms. Acquiring training data, storing that data, and using it to train an AI model are all expensive processes, meaning AI startups are likely to have to operate with increasingly lower-margin business models.[9] To the extent that AI regulations add additional layers of cost to AI development, only large incumbents will be able to comfortably afford to develop these systems, since startups do not have the operating capital necessary to sustain lowering their margins even further.[10] In the same vein, regulatory costs may force startups to raise their prices, leading potential customers to turn to larger companies instead.[11] Unnecessarily high regulatory costs would therefore put AI development out of reach for many startups, decreasing competition and cementing existing market dynamics. These costs might also discourage startups looking to integrate third-party AI into their products and services

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[6] *#StartupsEverywhere Profile: Noelle Acosta, Founder & CEO, Noula Health*, ENGINE (Oct. 28, 2022), https://www.engine.is/news/startupseverywhere-newyork-ny-noulahealth.

[7] *See, e.g.*, Blanca Ramos et. al, Latina Women: Health and Healthcare Disparities, 258-271 Social Work in Public Health 25:3-4 (2010), https://www.tandfonline.com/doi/full/10.1080/19371910903240605.

[8] *Supra* note 5.

[9] *See, e.g.*, Ivy Nguyen, *Could data costs kill your AI startup?*, VENTUREBEAT (Nov. 10, 2018), https://venturebeat.com/2018/11/10/could-data-costs-kill-your-ai-startup/.

[10] *See Hearing on Opportunities and Challenges for Trade Policy in the Digital Economy Before the Subcomm. on Int'l Trade, Customs, and Glob. Competitiveness* (statement of PILOT Inc.) ("Larger competitors are better positioned to absorb these compliance costs."); ENGINE, THE STATE OF THE STARTUP ECOSYSTEM 17 (2021), https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/60819983b7f8be1a2a99972d/1619106194054/The+State+of+the+Startup+Ecosystem.pdf (finding that the average seed-stage startup operates with only about $55,000 a month of capital).

[11] *See* statement of PILOT Inc., *supra* note 10.

from doing so, as acquiring these systems will become more expensive, thus harming valuable innovation by preventing startups from improving their offerings.

Among the ways to help ensure that regulatory costs do not become overly burdensome is to tailor regulations proportionally to the level of risk posed by an AI system, where only truly high-risk uses of AI are encumbered by regulation. Doing so would allow regulators to protect against legitimate, serious harms without forcing every AI developer and user to clear regulatory hurdles that are not appropriate or necessary in a particular context. For example, low-risk uses like facial recognition AI to facilitate digital glasses fittings should not need to clear the same compliance regime as potentially higher-risk uses like facial recognition AI for law enforcement.[12] Disproportionate regulation of this sort could deter the development and use of many low-risk but high-utility AI systems, handicapping the many companies and individuals that now or will soon rely on them and chilling innovation.

Given its likely outsize impacts on startups and their competitiveness, the U.S. should avoid ex-ante regulation that creates barriers to market. If the U.S. does indeed decide to pursue auditing, assessment, or certification requirements, these assessments must be structured appropriately to ensure that regulatory costs are kept at an appropriate level to permit competition. The idea of a mandatory certification/licensing scheme for AI has been suggested regularly,[13] but such a system is likely to create a "regulatory moat" bolstering the position and power of large companies that are already established in the AI ecosystem, while making it hard for startups to contest their market share.

Therefore, Engine believes that the best approach for any audit or quality assurance certification systems would be voluntary participation that offers a 'safe harbor' to incentivize participation. Safe harbors found in other areas of the law, like privacy[14] and cybersecurity[15] work well to incentivize best practices while avoiding burdensome mandates.

Experience with past privacy, content moderation, and proposed AI regulations in the European Union emphasizes the need for caution to avoid entrenching incumbents and stifling competition. Europe's data protection law, the General Data Protection Regulation, negatively impacts startup competitiveness through high compliance burdens, "penalize[s] smaller

[12] See related, Stewart Baker, The Flawed Claims About Bias in Facial Recognition, Lawfare (Feb. 2, 2022), https://www.lawfareblog.com/flawed-claims-about-bias-facial-recognition.

[13] Sindhu Sundar, *Sam Altman says a government agency should license AI companies — and punish them if they do wrong*, BUSINESS INSIDER (May 16, 2023) https://www.businessinsider.com/sam-altman-openai-chatgpt-government-agency-should-license-ai-work-2023-5.

[14] See, e.g., Federal Trade Commission, COPPA Safe Harbor Program, https://www.ftc.gov/enforcement/coppa-safe-harbor-program.

[15] See, e.g. U.S. Dept. of Health & Human Services, Guidance Portal: Breach Safe Harbor, https://www.hhs.gov/guidance/document/breach-safe-harbor; Ohio Rev. Code §1354 (2018) https://codes.ohio.gov/ohio-revised-code/section-1354.02.

companies within technology markets" and has led the E.U. to fall behind in the "global tech race."[16] The Digital Services Act requires startups to undertake actions that today's incumbent firms first did when they were worth hundreds of billions of dollars, threatening to only entrench those large companies by burdening startups with unproportionate costs and reducing incentives to invest in startups operating in those sectors.[17] Members of the startup ecosystem likewise expect similarly negative consequences to the E.U. AI Act, with over 100 European startups and VCs predicting that its regulations will slow down AI innovation.[18] These examples illustrate the need for regulation that is carefully designed and tailored to avoid having unintended and unnecessary consequences on the competitiveness of the AI market.

IV. AI Regulation Should Begin with Existing Law

The release of ChatGPT has turned up the media and regulatory temperature on AI.[19] Following its release and the ensuing media frenzy, The United States Patent and Trademark Office again considered whether AI contributions are fit for inventorship credit,[20] the United States Copyright Office has launched an initiative to examine the copyright law and policy issues raised by AI,[21] the Consumer Finance Protection Bureau and Federal Trade Commission requested information for the use of AI in tenant screening,[22] key Congressional committees have held multiple hearings (including testimony from OpenAI's CEO Sam Altman and others),[23] and much more. The regulatory interest in AI is important and well-intentioned, but lawmakers and policy enforcement officials should recall that AI has existed long before its current and heightened place in the public imagination, and many existing laws speak to issues many are concerned about. As a result, it is critical that policymakers exercise caution as they float ideas of

[16] Adam Thierer, *GDPR & European Innovation Culture: What the Evidence Shows*, MEDIUM (Feb. 5, 2023), https://medium.com/@AdamThierer/gdrp-european-innovation-culture-what-the-economic-evidence-shows-b19d2309de07.

[17] See, Daphne Keller The EU's new Digital Services Act and the Rest of the World, Verfassungsblog On Matters Constitutional (Nov. 22, 2022), https://verfassungsblog.de/dsa-rest-of-world/ ("The other predictable global harm will be to competition. The DSA burdens even very small platforms with obligations that today's incumbents never shouldered, or else took on only much later in their development.)

[18] INITIATIVE FOR APPLIED ARTIFICIAL INTELLIGENCE, AI ACT IMPACT SURVEY (2022), https://ki-verband.de/en/elementor-10015/.

[19] Claudia Grisales, C*ongress Wants to Regulate AI, But It Has a Lot of Catching Up to Do*, NPR (May 15, 2023), https://www.npr.org/2023/05/15/1175776384/congress-wants-regulate-ai-artificial-intelligence-lot-of-catching-up-to-do.

[20] United States Patent & Trademark Office, *Request for Comments Regarding Artificial Intelligence and Inventorship*, FEDERAL REGISTER (Feb. 14, 2023), https://www.federalregister.gov/documents/2023/02/14/2023-03066/request-for-comments-regarding-artificial-intelligence-and-inventorship.

[21] See United States Copyright Office, Copyright and Artificial Intelligence, https://www.copyright.gov/ai/.

[22] FTC and CFPB Seek Public Comment on How Background Screening May Shut Renters out of Housing, FEDERAL TRADE COMMISSION (Feb. 28, 2023), https://www.ftc.gov/news-events/news/press-releases/2023/02/ftc-cfpb-seek-public-comment-how-background-screening-may-shut-renters-out-housing.

[23] Brian Fung, *Mr. ChatGPT goes to Washington: OpenAI CEO Sam Altman testifies before Congress on AI risks*, CNN (May 16, 2023), https://www.cnn.com/2023/05/16/tech/sam-altman-openai-congress/index.html.

an overarching regulatory framework[24] to properly tailor any potential regulation to the diverse and broad set of concerns that arise. That caution is best exercised by examining how existing laws address the array of AI's applications and put forth guidance based on those laws and how they interact with AI.

Regulating AI is controversial, in no small part because defining AI itself is controversial.[25] As AI has become more embedded in daily life, several bills related to AI have been introduced that do not provide any definition.[26] Three of the bills that do contain an explicit definition—the FUTURE of Artificial Intelligence Act of 2017, the AI JOBS Act of 2018, and the National Security Commission Artificial Intelligence Act of 2018—have all offered different definitions.[27]

One reason that defining AI remains controversial is because the application of the technology varies greatly, as does the impact on innovation and society. AI is being used across numerous and diverse industries and sectors to expand access to education and tutoring,[28] assist the speed at which pharmaceutical companies can make breakthrough findings,[29] facilitate disease detection and ensure accurate diagnoses,[30] and much more. The concerns that arise with specific uses in specific contexts are often individualized. A one-size-fits-all regulation is not well-tailored or effective. Without greater understanding of the precise operational, risk, and mitigation issues are in particular contexts, the more the development of an overbroad, poorly defined, and imprecisely crafted regulatory framework risks creating an unclear and potentially unworkable legal maze difficult for startups to navigate with their limited resources – without countervailing benefits.

When thinking about definitions, agencies should look to existing glossaries built through collaboration and stakeholder input. The National Institute of Standards and Technology (NIST), for instance, has an extensive glossary related to its Risk Management Framework.[31] The U.S.-EU Trade and Technology Council (TTC) likewise has a list of 65 common terms.[32] Building regulatory

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[24] Brian Fung, *US senator introduces bill to create a federal agency to regulate AI*, CNN (May 18, 2023), https://www.cnn.com/2023/05/18/tech/bennet-digital-regulator-bill-ai-provisions/index.html.
[25] Sara Gerke, *The Tricky Task of Defining AI in the Law*, BILL OF HEALTH (Nov. 30, 2018) https://blog.petrieflom.law.harvard.edu/2018/11/30/the-tricky-task-of-defining-ai-in-the-law/
[26] *Id*.
[27] *Id*.; *see, e.g.*, 15 U.S.C § 9401(3) *contra* S.B. 3771 § 3(b)(2)(1)
[28] Chris Sadler, *The Future of AI Tutoring in Higher Ed*, New America (Apr. 4, 2023), https://www.newamerica.org/oti/briefs/the-future-of-ai-tutoring-in-higher-ed/.
[29] Ashleigh Furlong, *AI is About to Remake the Pharmaceutical Industry*, POLITICO (Mar. 8, 2023), https://www.politico.eu/article/ai-is-about-to-remake-the-pharmaceutical-drug-medicines-industry//
[30] Don Nguyen, How AI Can Help Diagnose Rare Diseases, HARVARD MEDICAL SCHOOL (Oct. 18, 2022), https://hms.harvard.edu/news/how-ai-can-help-diagnose-rare-diseases.
[31] NIST, *Glossary*, https://airc.nist.gov/AI_RMF_Knowledge_Base/Glossary.
[32] EU-U.S. Terminology and Taxonomy for Artificial Intelligence, https://www.nist.gov/system/files/documents/noindex/2023/05/31/WG1%20AI%20Taxonomy%20and%20Terminology%20Subgroup%20List%20of%20Terms.pdf.

frameworks from common foundations is critical to avoid a fragmented environment where, e.g., key definitions or standards vary from one jurisdiction to the next.[33]

Moreover, the European Union's relatively fast efforts to regulate through its AI Act helps to underscore the need for careful, informed, and methodical regulation. A recent survey of over 100 startups and venture capital firms indicated that over one third of potential AI systems will need to follow obligations that are a "significant challenge" in terms of technical, organizational, and compliance costs.[34] Sixteen percent of the startups surveyed said they will consider stopping their development or relocating outside of the European Union.[35] And 50% of those surveyed expressed concern that AI innovation will be slowed in Europe because of the Act.[36] Policymakers in the United States would be wise to consider these effects and work to ensure that any regulations are carefully tailored and encourage innovation, not unnecessarily hamper it.[37]

Instead, lawmakers and agencies should continue to consider, where possible, existing law and provide guidance on how that law can ensure AI accountability and ensure companies understand their current obligations clearly, without imposing unnecessary barriers to innovation, competition, and the United States' current strong role in AI development and deployment.

V. AI Regulation Should be Harmonized to the Extent Possible

In general, patchworks of varying regulations are bad for startups because they add layers of cost and complexity, which are something startups unfortunately experience in many contexts, from privacy,[38] to payroll,[39] to international trade,[40] and AI regulation should avoid these negative outcomes. There is plenty to learn from the experience of privacy regulatory patchworks

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[33] See additionally Infra at §V.

[34] Tom Whittaker, *EU AI Act: how will startups be impacted?*, LEXOLOGY (Jan. 4, 2023), https://www.lexology.com/library/detail.aspx?g=6d394e38-169d-45aa-8220-edfb1a5bae16.

[35] *Id*.

[36] *Id*.

[37] Leigh Buchanan, *American Entrepreneurship Is Actually Vanishing. Here's Why*, INC., https://www.inc.com/magazine/201505/leigh-buchanan/the-vanishing-startups-in-decline.html

[38] Daniel Castro, The Looming Cost of a Patchwork of State Privacy Laws, Information Technology & Innovation Foundation (Jan. 24, 2022), https://itif.org/publications/2022/01/24/looming-cost-patchwork-state-privacy-laws/; Engine, Privacy Patchwork Problem, https://www.engine.is/news/category/engine-releases-report-on-privacy-patchwork-problem-costs-burdens-and-barriers-encountered-by-startups.

[39] Azilen Technologies, *Take a Leap in Payroll Management using Advanced AI Capabilities*, MEDIUM (Aug. 19, 2019), https://medium.com/@AzilenTech/take-a-leap-in-payroll-management-using-advanced-ai-capabilities-d8c71430dbe7.

[40] *See e.g.*, Comments of Engine Advocacy Regarding Foreign Trade Barriers to U.S. Exports for 2023 Reporting, Engine (Oct. 28, 2022), https://engine.is/s/Engine-Comments-NTE-2023.pdf; see generally, United States Trade Representative, 2021 National Trade Estimate on Foreign Trade Barriers, https://ustr.gov/sites/default/files/files/reports/2021/2021NTE.pdf.

and their impacts on startup competitiveness. from privacy,[41] to payroll,[42] to international trade,[43] and AI regulation should avoid these negative outcomes.

For example, Ten states—California,[44] Virginia,[45] Colorado,[46] Connecticut,[47] Utah,[48] Iowa,[49] and Indiana[50], Montana, Tennessee, and Texas[51]—have passed and enacted their own unique comprehensive data privacy legislation. Other states have amended their privacy rules or passed sector specific privacy rules.[52] And so far in the 2023 state legislative calendar, over 30 states have introduced around 150 privacy related proposals that have introduced over 30 privacy laws, which have seen varying levels of movement toward passage.[53]

Not surprisingly, this patchwork of privacy regulation creates complexity and makes parsing the obligations for startups difficult and costly. Startups spend hundreds of thousands navigating their obligations under existing privacy law, and must spend up to $60,000 to navigate each new law—which often involve near-duplicate compliance activities that do not have additional tangible benefits for consumers. Costs such as these contribute to forecasts such as one from the Information Technology & Innovation Foundation that compliance cost are likely to

[41] Daniel Castro, The Looming Cost of a Patchwork of State Privacy Laws, Information Technology & Innovation Foundation (Jan. 24, 2022), https://itif.org/publications/2022/01/24/looming-cost-patchwork-state-privacy-laws/; Engine, Privacy Patchwork Problem, https://www.engine.is/news/category/engine-releases-report-on-privacy-patchwork-problem-costs-burdens-and-barriers-encountered-by-startups.

[42] Azilen Technologies, *Take a Leap in Payroll Management using Advanced AI Capabilities*, MEDIUM (Aug. 19, 2019), https://medium.com/@AzilenTech/take-a-leap-in-payroll-management-using-advanced-ai-capabilities-d8c71430dbe7.

[43] *See e.g.*, Comments of Engine Advocacy Regarding Foreign Trade Barriers to U.S. Exports for 2023 Reporting, Engine (Oct. 28, 2022), https://engine.is/s/Engine-Comments-NTE-2023.pdf; see generally, United States Trade Representative, 2021 National Trade Estimate on Foreign Trade Barriers, https://ustr.gov/sites/default/files/files/reports/2021/2021NTE.pdf.

[44] Cal. Civ. Code § 1798 (2018) https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=3.&part=4.&lawCode=CIV&title=1.81.5; see related FINAL REGULATIONS TEXT California

[45] Va. Code § 59.1-575 (2021) https://law.lis.virginia.gov/vacodefull/title59.1/chapter53/

[46] Colo. Rev. Stat. § 6-1-1301 (2021) https://leg.colorado.gov/sites/default/files/2021a_190_signed.pdf; see related VERSION 3 OF PROPOSED DRAFT RULES, Attorney General of Colorado (Jan. 27, 2023), https://coag.gov/app/ uploads/2023/01/CPA_Version-3-Proposed-Draft-Regulations-1.27.2023.pdf.

[47] Conn Pub. Acts 22-15 (2022) https://www.cga.ct.gov/2022/ACT/PA/PDF/2022PA-00015-R00SB-00006-PA.PDF.

[48] Utah Code § 13-61 (2022) https://le.utah.gov/~2022/bills/static/SB0227.html.

[49] S.F. 262, 90th Gen. Assemb., Reg. Sess. §§ 1-9 (Iowa 2023), https://www.legis.iowa.gov/legislation/BillBook?ba=SF%20262&ga=90.

[50] Ind. Code § 24-15-1-1

[51] Kelley Laughlin, *Five New States Advance Privacy Laws in May 2023*, JD SUPRA (Jun. 8, 2023), https://www.jdsupra.com/legalnews/five-new-states-advance-privacy-laws-in-6659996/.

[52] David Stauss, Washington Legislature Passes My Health My Data Act, HUSCH BLACKWELL (Apr. 17, 2023), https://www.bytebacklaw.com/2023/04/washington-legislature-passes-my-health-my-data-act/.

[53] Privacy Patchwork Problem, supra note 41.

exceed $1 trillion over the next ten years, with at least $200 billion hitting small businesses as more states implement legislation.[54]

Likewise, incongruent frameworks around the world lead to increased costs for startups looking to operate and serve clients there. For example, PILOT, a startup based in New York City that provides tech-driven virtual group coaching programs to companies faces headwinds because the regulatory environment they encounter abroad is less favorable than here in the U.S. As Founder Ben Brooks highlights:

> "The regulatory environment and resulting compliance costs impact our competitiveness as a startup in multiple ways. Larger competitors are better positioned to absorb these compliance costs. Cumbersome regulatory environments also impact our prospective customers, who respond by reducing the amount of vendors they have. That means they often consolidate their supplier base to work with a few large companies and startups like us lose out on critical business opportunities. And finally as a result of regulations abroad, prospective customers in other countries may instead turn to a domestic competitor who can offer a lower price or appear to reduce regulatory risk."

As agencies and lawmakers develop guidance and consider policies, AI regulation should be harmonized to the extent possible so as to avoid the sort of inconsistent, patchwork problems that we have seen with privacy domestically, and with various issues in international trade. Again, a critical part of harmonization is building from common terms, and to that end policymakers should look to agreed-upon nomenclature like that from NIST or arising at the TTC.

[54] Supra note 41.

VI. Sandboxes Should be Considered as Part of AI Regulatory Response

Regulatory sandboxes allow businesses and regulators to cooperate to create a safe testing ground for products or services.[55] In simple terms, sandboxes allow real-life environment testing of innovative technologies, products, or services, which may not be fully compliant with the existing legal and regulatory framework.[56] They operate from the understanding that innovation can often evolve more rapidly than government rules,[57] and they help to foster good practices and collaboration between innovators, established companies, and regulators, especially around emerging technologies.

For example, North Carolina, Arizona, and Florida have all implemented successful industry-specific regulatory sandboxes.[58] Arizona became the first state to enact a regulatory Fintech sandbox in 2018, joining the United Kingdom, the United Arab Emirates and Singapore in encouraging investment and innovation by instituting sandboxes.[59] The sandbox allows startups and entrepreneurs to launch products on a limited, temporary scale for customers to test before being opened to the broader market, and they can do so without incurring regulatory costs or burdens.[60]

North Carolina's sandbox is likewise open to fintech entrepreneurs and allows startups to bypass regulation entirely to test their products.[61] Entrepreneurs must apply for a temporary regulatory exemption through the North Carolina Innovation Council to temporarily test a

[55] Michael Lucci, The Case for Regulatory Sandboxes, CITY JOURNAL (Apr. 1, 2022), https://www.city-journal.org/article/the-case-for-regulatory-sandboxes#:~:text=Industry%2Dspecific%20regulatory%20sandboxes%20have,an%20all%2Dindustries%20regulatory%20sandbox.

[56] Federal Registry for Economic Affairs and Climate Actions, https://www.bmwk.de/Redaktion/EN/Dossier/regulatory-sandboxes.html#:~:text=Regulatory%20sandboxes%20enable%20in%20a,existing%20legal%20and%20regulatory%20framework.

[57] Michael Lucci, *The Case for Regulatory Sandboxes*, CITY JOURNAL (Apr. 1, 2022), https://www.city-journal.org/article/the-case-for-regulatory-sandboxes#:~:text=Industry%2Dspecific%20regulatory%20sandboxes%20have,an%20all%2Dindustries%20regulatory%20sandbox.

[58] *Id*.

[59] Chris Isaacs, *Success in the Sandbox: What Montana Can Learn from Utah and Arizona's Regulatory Sandboxes*, FRONTIER INSTITUTE (Feb. 1, 2023), https://frontierinstitute.org/success-in-the-sandbox-what-montana-can-learn-from-utah-and-arizonas-regulatory-sandboxes/

[60] *Things to Know About Arizona's FinTech Sandbox*, GREATER PHOENIX ECONOMIC COUNCIL (Apr. 8, 2021), https://www.gpec.org/blog/things-to-know-about-arizonas-fintech-sandbox/.

[61] Lauren Ohnesorge, *Entrepreneurs Ready to Dive Into NC's New Regulatory Sandbox, but Some Urge Caution*, THE BUSINESS JOURNAL (Dec. 13, 2022), https://www.bizjournals.com/triangle/inno/stories/news/2022/12/13/nc-regulatory-sandbox-fintect-entrepreneurs-rules.html

product or service in the financial or insurance space with a limited number of customers without being subject to certain regulations that could otherwise dampen innovation.[62]

Significantly, though, key takeaways from the successful state sandboxes underscore that sandboxes only work if startups want to enter them. As money is made once a product can reach market, startups are only interested in innovating within a sandbox if they can successfully exit the sandbox and compete in the marketplace. Merely attaching a sandbox to an otherwise poorly tailored and burdensome regulatory environment will do little to incentivize innovation, because startups and their investors do not see a market opportunity. Therefore, sandboxes are a useful tool to consider, but are only part of a proper, balanced regulatory response, and are not a catchall for otherwise pernicious consequences of regulation.

VII. Government Should Fund and Make Widely Available AI Resources to Startups

Startups and others already face high financial barriers to developing AI systems. These costs will only increase with additional regulation. Thus, it is important that the government play a role in funding important AI resources, so that startups can innovate while remaining competitive in the market. To that end, the government should pursue funding and building efforts such as the National AI Research Resource (NAIRR), a national research infrastructure that would maintain and broaden access to the resources essential to AI research and development,[63] structuring it so that all AI developers will have equal, open access to its resources. These resources should include a repository of vetted training sets for AI systems, compute resources, research on techniques for building AI systems, documentation of best practices for responsible AI development, and education and training on compliance with AI regulations.

Providing resources such as these through a program like NAIRR could help to ensure that the cost of regulatory compliance is kept relatively low, encouraging innovation in AI to continue, and ensuring new entrants into the AI market will not face unreasonably high barriers to entry. Along with lowering costs, creating these shared resources will ensure that all AI developers better understand how to comply with regulations and have access to training data that has been vetted for errors and bias. These steps will encourage affordable, practical protections for the public from a potential proliferation of AI systems released with low accountability standards. Government provision of some of these resources could also allow a broader and more diverse set of stakeholders to contribute to their development. This collective approach will allow more

[62] *Id*.

[63] OSTP, *National Artificial Intelligence Research Resource Task Force Releases Final Report*, The White House (Jan. 24, 2023), https://www.whitehouse.gov/ostp/news-updates/2023/01/24/national-artificial-intelligence-research-resource-task-force-releases-final-report/.

viewpoints to be represented in their creation, increasing the odds that these resources are safe, unbiased, useful, and designed equitably.

The government also has an important role to play in facilitating the creation of educational resources, webinars, and training sessions that would increase awareness around AI accountability and make accountability and regulatory policies and requirements more accessible for developers and users alike. Developing short, digestible guidance that explain AI accountability policies and any necessary compliance measures could go a long way toward enhancing the reach and effectiveness of these educational efforts and improve rates of compliance with accountability measures.

For example, startups routinely look to expert resources like Risk Management Frameworks developed by NIST, including those around cybersecurity, privacy, and now Artificial Intelligence.[64] NIST has distilled its earlier RMFs into digestible resources that make it easier for startups to get started and implement best practices. NIST should do likewise with the AI RMF to make the framework more accessible and increase uptake by startups. The synthesized resources should be developed in collaboration with startups, small innovators, and intermediaries like incubators and accelerators that understand the needs of the startups who will be relying on these educational materials and can help ensure the best fit for those needs.

Finally, startups can only make use of resources they know about. Therefore, it is important that agencies conduct extensive outreach to startups and others in the startup ecosystem that startups turn to for help (like accelerators, incubators and coworking spaces) to ensure awareness and encourage use of available guidance.

[64] NIST, NIST AI RMF Playbook, https://airc.nist.gov/AI_RMF_Knowledge_Base/Playbook.