

ACT | The App Association's Policy Principles for Artificial Intelligence

Artificial intelligence (AI) is an evolving constellation of technologies that enable computers to simulate elements of human thinking, such as learning and reasoning. An encompassing term, AI entails a range of approaches and technologies, such as machine learning (ML), where algorithms use data, learn from it, and apply their newly-learned lessons to make informed decisions, and deep learning, where an algorithm based on the way neurons and synapses in the brain change as they are exposed to new inputs allows for independent or assisted decision-making. Already, AI-driven algorithmic decision tools and predictive analytics have substantial direct and indirect effects in consumer and enterprise context, and show no signs of slowing in the future.

Across use cases and sectors, AI has incredible potential to improve consumers' lives through faster and better-informed decision-making, enabled by cutting-edge distributed cloud computing. Even now, consumers are encountering AI in their lives incrementally through the improvements they have seen in computer-based services they use, typically in the form of streamlined processes, image analysis, and voice recognition, all forms of what we consider "narrow" AI. These narrow applications of AI already provide great societal benefit. As AI systems, powered by streams of data and advanced algorithms, continue to improve services and generate new business models, the fundamental transformation of economies across the globe will only accelerate.

Nonetheless, AI also has the potential to raise a variety of unique considerations for policymakers. ACT | The App Association appreciates the efforts to develop a policy approach to AI that will bring its benefits to all, balanced with necessary safeguards to protect consumers.

To guide policymakers, we recommend the following principles for action:

1. **National AI Strategies:** Many of the policy issues raised below involve significant work and changes that will impact a range of stakeholders. The cultural, workforce training and education, data access, and technology-related changes associated with AI will require strong guidance and coordination. National AI strategies incorporating guidance on the issues below will be vital to achieving the promise that AI offers to consumers and entire economies. We believe it is critical that countries also take this opportunity to encourage civil society organizations and private sector stakeholders to begin similar work.
2. **Research:** Policy frameworks should support and facilitate research and development of AI by prioritizing and providing sufficient funding while also ensuring adequate incentives (e.g., streamlined availability of data to developers, tax credits) are in place to encourage private and non-profit sector research. Transparency research should be a priority and involve collaboration among all affected stakeholders who must responsibly address the ethical, social, economic, and legal implications that may result from AI applications.

3. **Quality Assurance and Oversight:** Policy frameworks should utilize risk-based approaches to ensure that the use of AI aligns with the recognized standards of safety, efficacy, and equity. Providers, technology developers and vendors, and other stakeholders all benefit from understanding the distribution of risk and liability in building, testing, and using AI tools. Policy frameworks addressing liability should ensure the appropriate distribution and mitigation of risk and liability. Specifically, those in the value chain with the ability to minimize risks based on their knowledge and ability to mitigate should have appropriate incentives to do so. Some recommended guidelines include:
 - Ensuring AI is safe, efficacious, and equitable.
 - Supporting that algorithms, datasets, and decisions are auditable.
 - Encouraging AI developers to consistently utilize rigorous procedures and enabling them to document their methods and results.
 - Requiring those developing, offering, or testing AI systems to provide truthful and easy to understand representations regarding intended use and risks that would be reasonably understood by those intended, as well as expected, to use the AI solution.
 - Ensuring that adverse events are timely reported to relevant oversight bodies for appropriate investigation and action.
4. **Thoughtful Design:** Policy frameworks should require design of AI systems that are informed by real-world workflows, human-centered design and usability principles, and end-user needs. AI systems solutions should facilitate a transition to changes in the delivery of goods and services that benefit consumers and businesses. The design, development, and success of AI should leverage collaboration and dialogue among users, AI technology developers, and other stakeholders in order to have all perspectives reflected in AI solutions.
5. **Access and Affordability:** Policy frameworks should ensure AI systems are accessible and affordable. Significant resources may be required to scale systems. Policymakers should take steps to remedy the uneven distribution of resources and access and put policies in place that incent investment in building infrastructure, preparing personnel and training, as well as developing, validating, and maintaining AI systems with an eye toward ensuring value.
6. **Ethics:** The success of AI depends on ethical use. A policy framework will need to promote many of the existing and emerging ethical norms for broader adherence by AI technologists, innovators, computer scientists, and those who use such systems. Policy frameworks should:
 - Ensure that AI solutions align with all relevant ethical obligations, from design to development to use.
 - Encourage the development of new ethical guidelines to address emerging issues with the use of AI, as needed.
 - Maintain consistency with international conventions on human rights.
 - Ensure that AI is inclusive such that AI solutions beneficial to consumers are developed across socioeconomic, age, gender, geographic origin, and other groupings.
 - Reflect that AI tools may reveal extremely sensitive and private information about a user and ensure that laws protect such information from being used to discriminate against certain consumers.

7. **Modernized Privacy and Security Frameworks:** While the types of data items analyzed by AI and other technologies are not new, this analysis will provide greater potential utility of those data items to other individuals, entities, and machines. Thus, there are many new uses for, and ways to analyze, the collected data. This raises privacy issues and questions surrounding consent to use data in a particular way (e.g., research, commercial product/service development). It also offers the potential for more powerful and granular access controls for consumers. Accordingly, any policy framework should address the topics of privacy, consent, and modern technological capabilities as a part of the policy development process. Policy frameworks must be scalable and assure that an individual's data is properly protected, while also allowing the flow of information and responsible evolution of AI. This information is necessary to provide and promote high-quality AI applications. Finally, with proper protections in place, policy frameworks should also promote data access, including open access to appropriate machine-readable public data, development of a culture of securely sharing data with external partners, and explicit communication of allowable use with periodic review of informed consent.

8. **Collaboration and Interoperability:** Policy frameworks should enable eased data access and use through creating a culture of cooperation, trust, and openness among policymakers, AI technology developers and users, and the public.

9. **Bias:** The bias inherent in all data, as well as errors, will remain one of the more pressing issues with AI systems that utilize machine learning techniques in particular. Any regulatory action should address data provenance and bias issues present in the development and uses of AI solutions. Policy frameworks should:
 - Require the identification, disclosure, and mitigation of bias while encouraging access to databases and promoting inclusion and diversity.
 - Ensure that data bias does not cause harm to users or consumers.

10. **Education:** Policy frameworks should support education for the advancement of AI, promote examples that demonstrate the success of AI, and encourage stakeholder engagements to keep frameworks responsive to emerging opportunities and challenges.
 - Consumers should be educated as to the use of AI in the service they are using.
 - Academic education should include curriculum that will advance the understanding of and ability to use AI solutions.

The App Association represents more than 5,000 small business software application development companies and technology firms across the mobile economy. Our members develop innovative applications and products that meet the demands of the rapid adoption of mobile technology and that improve workplace productivity, accelerate academic achievement, monitor health, and support the global digital economy. Our members play a critical role in developing new products across consumer and enterprise use cases, enabling the rise of the internet of things (IoT). Today, the App Association represents an ecosystem valued at approximately \$1.7 trillion that is responsible for millions of jobs around the world.

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