



## NEW HAMPSHIRE STATE GOVERNMENT CODE OF ETHICS FOR THE USE AND DEVELOPMENT OF GENERATIVE ARTIFICIAL INTELLIGENCE AND AUTOMATED DECISION SYSTEMS

## Need for a Code of Ethics

The State of New Hampshire Department of Information Technology (DoIT) recognizes the business advantage of, and supports the adoption and use of, generative artificial intelligence and automated decision systems (AI Systems). These systems can be used to optimize the delivery of essential government services and improve the experience of residents, visitors and businesses that do business with the State of New Hampshire.

To maximize the business benefits and minimize the risks of AI Systems, there must be continuous adherence to the principles that guide the State of New Hampshire's development and use of these technologies. For several years now, scientists, ethicists, policy makers and corporations from around the world, and from all political systems, have engaged in debate about what is "right" as applied to the creation and use of these new technologies. These ongoing debates have informed DoIT's recommendation.

DoIT provides and recommends the application of the following Code of Ethics for the Use and Development of Generative Artificial Intelligence and Automated Decision Systems (Code of Ethics), by all State of New Hampshire Government Organizations, based on the *European Union guideline on ethics in artificial intelligence*.<sup>1</sup>

## **Operational Definitions**

Algorithm. A computerized procedure consisting of a set of steps used to accomplish a determined task.

**Automated decision system.** Any algorithm, including one incorporating machine learning or other artificial intelligence techniques, that uses data-based analytics to make or support government decisions, judgments, or conclusions.

<sup>&</sup>lt;sup>1</sup> The EU guidelines were chosen due to their "Human" focus, which, for the State of New Hampshire, translates as a "Residents, visitors, and businesses" focus versus many of the U.S. models that are developed mostly through private-sector initiatives and self-regulation. The full analysis is available here: <u>EU guidelines on ethics in</u> <u>artificial intelligence: Context and implementation (europa.eu)</u>

Automated final decision system. An automated decision system that makes final decisions, judgments, or conclusions without human intervention.

**Automated support decision system.** An automated decision system that provides information to inform the final decision, judgment, or conclusion of a human decision maker.

**Artificial intelligence systems.** Systems capable of perceiving an environment through data acquisition and then processing and interpreting the derived information to take an action or actions or to imitate intelligent behavior given a specific goal. An artificial intelligence system can also learn and adapt its behavior by analyzing how the environment is affected by prior actions.

**Generative artificial intelligence.** Algorithms that create new content, including audio, code, images, text, simulations, and videos.

## New Hampshire State Government Code of Ethics for AI Systems

A. **Fundamental Rights**: The following fundamental human rights are critical to a human-centric code of ethics and serve as the foundation of ethical use and development of AI Systems:

i. **Human Dignity**: AI Systems technology shall be developed such that it respects, serves and protects humans' personal and cultural sense of identity, physical and mental integrity, and satisfies basic needs.

ii. **Individual Freedom**: Humans have freedom to make life decisions for themselves, without sovereign intrusion, except to ensure that individuals or people at risk of exclusion have equal access to AI Systems benefits and opportunities, when used by the State of New Hampshire.

iii. **Respect for democracy/justice/law**: AI Systems shall serve to maintain and promote democratic processes, to honor the rule of law, and to respect the values and life choices of individuals, and the norms of the State of New Hampshire.

iv. **Equality, non-discrimination, and solidarity**: Equal respect for the moral worth and dignity of all human beings shall be ensured by development of AI Systems whose operations cannot generate unfairly biased outputs to any individual or group.

v. **Residents' and visitors' rights**: AI Systems shall not infringe upon the wide array of residents' and visitors' rights, including the right to vote, the right to good administration or access to public documents, and all other rights and freedoms of the residents and visitors of New Hampshire.

B. **Ethical Principles**: The four AI Systems ethical principles align to the fundamental human rights detailed above. They serve to optimize the delivery of essential government services and improve the experience of residents, visitors and businesses that do business with the State of New Hampshire through the responsible development of AI Systems.

i. **Respect for human autonomy**: In New Hampshire, humans interacting with AI Systems must be able to keep full and effective self-determination over themselves and be able to partake in the democratic process.

ii. **Prevention of harm**: AI Systems should neither cause nor exacerbate harm or otherwise adversely affect human beings and the natural environment.

iii. **Fairness**: When used by government, the development, deployment and use of AI Systems must be fair, ensuring equal and just distribution of both benefits and costs, and ensuring that individuals and groups are free from unfair bias, discrimination and stigmatization.

iv. **Explicability**: Al Systems processes need to be transparent, the capabilities and purpose openly communicated, and State of New Hampshire government decisions – to the extent possible – explainable to those directly and indirectly affected.

C. **Requirements for AI Systems**: The following technical and social requirements are recommended to support the implementation of the AI Systems ethical principles that were detailed above:

i. **Human agency and oversight**: Fundamental rights, human agency and human oversight must be applied in every use and development case of AI Systems across the State of New Hampshire. Automated final decision systems should not be used by any government organization in the State of New Hampshire. Automated decision support systems should be widely used by government entities in the State of New Hampshire.

ii. **Technical robustness and safety:** Resilience to attack and security, continuity plans, and general safety, accuracy, reliability, and reproducibility must be applied in every use and development case of AI Systems.

iii. **Privacy and data governance**: The State's respect for privacy, quality and integrity of data, and access to data must be applied in every use and development case of AI Systems used by government entities.

iv. **Transparency:** Across New Hampshire, traceability, explainability and communication must be applied in every use and development case of AI Systems.

v. **Diversity, non-discrimination, and fairness**: Accessibility and equity-focused design, stakeholder participation and the avoidance of unfair bias must be used in every use and development case of AI Systems by government entities.

vi. **Societal and environmental wellbeing**: Across New Hampshire, sustainability and environmental friendliness, social impact, society, and democracy should be considered in every use and development case of AI Systems.

vii. **Accountability**: Auditability, minimization and reporting of negative impact, trade-offs and redress must be included in every use and development case of AI Systems used by the State of New Hampshire.

D. Maintenance of the Code of Ethics for Generative Artificial Intelligence and Automated Decision **Systems**: The Department of Information Technology will review the Code of Ethics annually, or when significant changes occur in the best practices for use and development of, or ethical determinations relating to, AI Systems.