AAMC

Essential AI Terms and Definitions for Implementing AI in Selection

This glossary offers quick definitions for key artificial intelligence (AI) terms to support clear communication with internal teams and vendors. Use it as a reference throughout your discussions.

Term / Acronym	Definition
Adverse impact ratio/four-fifths rule	A well-established fairness check in selection processes. Potential bias is flagged if any group's selection rate is less than four-fifths (80%) of the highest group's selection rate. For example, if 50% of male applicants are selected but only 30% of female applicants, this rule would flag potential bias, because 30/50 = .60, or 60%, which is less than the four-fifths cutoff.
AI governance	The set of rules and practices that guide how AI tools are used responsibly, including policies developed by your institution, the AI vendor, and any relevant regulatory bodies. These rules determine who can use AI tools, when they can be used, and how to ensure they treat all applicants fairly.
AI reasoning	The logic and decision-making process used by the AI system to arrive at its conclusions or recommendations.
Algorithmic bias	When an AI system consistently makes unfair decisions that disadvantage a well-defined group or groups of applicants, often defined by demographic characteristics (e.g., gender, race/ethnicity, age). The cause of algorithmic bias may be due to the nature of the data provided to the algorithm, not necessarily the algorithm itself.
Application programming interface (API)	A set of protocols for building and integrating application software.

© 2025 Association of American Medical Colleges

Term / Acronym	Definition
Appeal	A formal process where an applicant can challenge a decision after it has been made, regardless of whether that decision was made by AI or humans.
Area under the curve (AUC)	A well-established measure of an AI model's ability to distinguish between qualified and unqualified applicants. Values range from 0.5 (random guessing) to 1.0 (perfect model performance).
Bias correction methods	Techniques used to adjust the AI system to reduce or eliminate detected biases. These methods can involve carefully selecting the data used to train the AI or modifying the AI model itself.
Black box	An algorithm or AI system that makes decisions without showing how it reached them. In other words, one can see the data going into the black box and the decisions coming out of the black box, but we don't know exactly how it arrives at those decisions.
Continuous learning	Ongoing education and skill development related to AI, machine learning, and AI systems and their use, in this case in the context of admissions and selection.
Continuous quality improvement (CQI)	An ongoing process with predefined timepoints to evaluate an AI system's performance, identify areas for improvement, and make updates to ensure it continues to meet your institution's needs and standards.
Data minimization	The practice of limiting the collection and retention of data to only what is necessary for the specified purpose. This is an ethically appropriate practice.
Data rights	The legal entitlements of individuals regarding the collection and use of their personal data, including rights to access, correction, and erasure.
Data sharing	The practice of making data available to external parties, which may include other organizations or services. This requires careful consideration of privacy, security, and appropriate use. There need to be clear agreements on who can use the data, how they'll protect it, what they can do with it, and when they must delete it.

Term / Acronym	Definition
Datasheets	Documents detailing the characteristics, creation process, and recommended uses of datasets used in AI systems.
Disclosure	The act of making information about AI use known to applicants and other invested parties.
External audit	An independent review of the AI system's performance, fairness, and compliance with relevant standards and regulations.
Fairness audits	Systematic reviews of the AI system to assess its fairness across different demographic groups.
Fairness metrics	Quantitative measures used to assess whether an AI system is treating different groups equitably (e.g., adverse impact ratio, standardized mean difference, true positive rate).
General Data Protection Regulation (GDPR)	A European Union regulation on data protection and privacy.
GDPR Article 12(2)	Allows institutions to refuse requests deemed unfounded or insufficiently substantiated.
GDPR Article 12(5)	Allows institutions to charge a reasonable fee for excessive data requests or refuse to act on the request.
Human-in-the-loop	An approach where human judgment is essential and incorporated into AI-based decision-making processes.
Implementation guide	A comprehensive document outlining the steps and best practices for deploying and using the AI system within an institution.
Interpretability	The ability for users to understand how and why the AI made specific predictions.
Intersectional	The interconnected nature of social categorizations such as race and gender (e.g., Black woman).
Large language model (LLM)	An AI model trained on vast amounts of text data, capable of generating human-like text.

Term / Acronym	Definition
Local Interpretable Model-agnostic Explanations (LIME)	A method for explaining AI decisions by highlighting the most important input factors for each individual prediction that is made. It is like taking a set of essays and, for each essay, highlighting the key points that led to its grade.
Model cards	Standardized documents providing key information about a machine learning model, including its intended use, performance characteristics, and limitations.
Model complexity	The sophistication and intricacy of an AI model, which can capture nuanced patterns but may be harder to interpret and explain.
NIST Risk Management Framework	Guidelines developed by the National Institute of Standards and Technology (NIST), to help institutions safely and effectively manage technology risks. The framework serves as a trusted standard for implementing AI responsibly in high-stakes decisions.
Override	The ability for staff to change or disregard an AI-generated decision during the review process, typically before a decision is sent to the applicant.
Partial dependence	A method showing how changing one input variable affects the AI's decision while keeping all others constant. It is similar to seeing how changing just your test score might affect your chances of admission, assuming everything else in your application stays the same.
Performance evaluation framework	A structured approach to assessing how well the AI system meets its intended goals and objectives in real-world applications.
Predictive accuracy	How well the AI tool predicts outcomes based on historical data at a specific institution and as part of multi-institution, larger-scale collaborations.
Psychometric soundness	A psychometrically sound tool reliably assesses the qualities we're looking for in candidates and can show that these measurements predict important outcomes, like success at your institution (refer to: Success characteristics).
Regulatory compliance	Adherence to laws, regulations, guidelines, and specifications relevant to data protection and privacy.

Term / Acronym	Definition
Role-specific training	Training tailored to the specific needs and responsibilities of different user roles (e.g., IT staff, leadership).
Shapley Additive Explanations (SHAP)	A method that helps us understand how our AI tool makes decisions across all applications. It shows which factors are most influential overall, similar to determining which elements (like specific assignments, test scores, or attendance) contribute most to students' overall performance at an institution.
Standardized mean difference/Cohen's d	A well-established approach that measures the difference between the averages of two groups on their outcomes, useful for comparing scores or selection rates.
Success characteristics	Qualities or attributes of applicants that are associated with positive outcomes in your specific institution. These attributes should align with your institution’s unique goals and agreed-upon definitions of success.
Third-party	Any external entity or service provider that may have access to or process applicant data.
Training data	Historical information used to teach the AI system how to make decisions, such as past application data and outcomes. It is like giving the AI a textbook of past admissions decisions to learn from.
Transparency	The practice of openly sharing information about how AI is used in the selection process.
Unstructured data	Information that does not fit neatly into traditional row-column databases, such as essays, recommendation letters, or video interviews.
User-friendly documentation	Clear, easily understandable guides and resources that help users effectively interact with and understand the AI system.
Version control	A system for tracking and managing changes to the AI system over time. Version control ensures greater transparency in understanding how an AI system changes, and it ensures that all invested parties have the same understanding of the AI system and its changes.