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Information technology - Artificial intelligence - Treatment of unwanted bias in classification and regression machine learning tasks (ISO/IEC TS 12791:2024)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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**Information technology - Artificial intelligence - Treatment
of unwanted bias in classification and regression machine
learning tasks (ISO/IEC TS 12791:2024)**

Technologies de l'information - Intelligence artificielle
- Traitement des biais indésirables dans les tâches
d'apprentissage automatique de classification et de
régression (ISO/IEC TS 12791:2024)

Informationstechnik - Künstliche Intelligenz -
Behandlung von unerwünschtem Bias bei
Klassifizierungs- und Regressionsaufgaben des
maschinellen Lernens (ISO/IEC TS 12791:2024)

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CEN/CLC ISO/IEC/TS 12791:2024 (E)

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European foreword

This document (CEN/CLC ISO/IEC/TS 12791:2024) has been prepared by Technical Committee ISO/IEC JTC 1 "Information technology" in collaboration with Technical Committee CEN-CENELEC/ JTC 21 "Artificial Intelligence" the secretariat of which is held by DS.

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Endorsement notice

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Technical Specification

ISO/IEC TS 12791

Information technology — Artificial intelligence — Treatment of unwanted bias in classification and regression machine learning tasks

*Technologies de l'information — Intelligence artificielle —
Traitement des biais indésirables dans les tâches d'apprentissage
automatique de classification et de régression*

**First edition
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Foreword

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ISO/IEC TS 12791:2024(en)

Introduction

This document describes steps that can be taken to treat unwanted bias during the development or use of AI systems.

This document is based on ISO/IEC TR 24027 and provides treatment techniques in accordance with the AI system life cycle as defined in ISO/IEC 22989:2022, Clause 6 and ISO/IEC 5338. The treatment techniques in this document are agnostic of context. This document is based on the types of bias described in ISO/IEC TR 24027.

This document describes good practises for treating unwanted bias and can help an organization with the treatment of unwanted bias in machine learning (ML) systems that conduct classification and regression tasks. The techniques in this document are applicable to classification and regression ML tasks. This document does not address applicability of the described methods outside of the defined ML tasks.

This document does not contain organizational management and enabling processes related to an AI management system, which can be found in ISO/IEC 42001.

[Annex A](#) provides a cross-reference between the life cycle stages and the clauses of this document.

Information technology — Artificial intelligence — Treatment of unwanted bias in classification and regression machine learning tasks

1 Scope

This document describes how to address unwanted bias in AI systems that use machine learning to conduct classification and regression tasks. This document provides mitigation techniques that can be applied throughout the AI system life cycle in order to treat unwanted bias. This document is applicable to all types and sizes of organization.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 5259-4:2024, *Artificial intelligence — Data quality for analytics and machine learning (ML) — Part 4: Data quality process framework*

ISO/IEC 22989:2022, *Information technology — Artificial intelligence — Artificial intelligence concepts and terminology*

ISO/IEC/IEEE 29119-3:2021, *Software and systems engineering — Software testing — Part 3: Test documentation*

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