

The data presented have a value for research and not a legal value.

ID 3

5259 - 2

Specification

Data quality measures

Relationship with AI Act

Article 017, Article 005 (Accessibility); Article 015 (Accuracy); Article 015, Article 010, Article 017 (Bias detection and correction); Article 017 (Compliance); Article 017 (Data holder); Article 017 (Identifiability); Article 010 (Consistency); Article 015 (Data quality reporting); Article 015, Article 010 (Origin of data); Article 010 (Quality criteria); Article 012 (Traceability); Article 010 (Training, validation, testing datasets)

Link

<https://www.iso.org/standard/81860.html>

Scope

This document specifies a data quality model, data quality measures and guidance on reporting data quality in the context of analytics and machine learning (ML).
This document is applicable to all types of organizations who want to achieve their data quality objectives.

Terms	Variant	Complementary	AI Act	
21 Compliance	complete		Article 017	3
1 Accessibility	access		Article 017, Article 005	3
22 Data holder	identifiability		Article 017	3
25 Consistency			Article 010	3
11 Balance				3
20 Completeness				3
63 Resilience regarding errors, faults,	dataset			3
13 Bias detection and correction	dataset		Article 015, Article 010, Article 017	3
26 Credibility		complementary		3
75 Understandability		complementary		3
27 Currentness		complementary		3
76 Validation		complementary		3
39 Efficiency		complementary		3
57 Quality criteria		complementary	Article 010	3
74 Training, validation, testing datasets		complementary	Article 010	3
56 Precision		complementary		3
60 Relevance		complementary		3
12 Benchmark and measurement methodologies		complementary		3
69 Synthetic or anonymised data		complementary		3
37 Documentation of the access, to avoid misuse		complementary		3

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Observations

ID 16

5259 - 3

Specification

Data quality management requirements and guidelines

Relationship with AI Act

Article 017, Article 009, Article 012, Article 006, Article 007 (Risk management)

Link

<https://www.iso.org/standard/81092.html>

Scope

This document specifies requirements and provides guidance for establishing, implementing, maintaining and continually improving the quality of data used in the areas of analytics and machine learning.
This document does not define a detailed process, methods or metrics. Rather it defines the requirements and guidance for a quality management process along with a reference process and methods that can be tailored to meet the requirements in this document.
The requirements and recommendations set out in this document are generic and are intended to be applicable to all organizations, regardless of type, size or nature.

Terms	Variant	Complementary	AI Act	
168 Data quality plan				16
165 Data quality management				16
169 Data quality culture				16
170 Management				16
172 Audit and assessment				16
171 Data quality management lifecycle				16
173 Horizontal aspects				16
101 Risk management			Article 017, Article 009, Article 012, Article 006, Article 007	16
174 Data format				16
175 Managing of data quality dependencies				16
176 Management system integration				16

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Terms	Variant	Complementary	AI Act
31 Data processed are secured, protected,			11
93 Preparation			11
30 Data life cycle		Article 017	11
94 Decommissioning			11
88 Support			11
109 Business requirements			11
110 Verification and validation			11
111 Governance		Article 010	11

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Observations

ID 11 **8183** -

Specification Data life cycle

Relationship with AI Act Article 017 (Data life cycle); Article 010 (Governance)

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:8183:ed-1:v1:en>

Scope This document defines the stages and identifies associated actions for data processing throughout the artificial intelligence (AI) system life cycle, including acquisition, creation, development, deployment, maintenance and decommissioning. This document does not define specific services, platforms or tools. This document is applicable to all organizations, regardless of type, size or nature, that use data in the development and use of AI systems.

Terms	Variant	Complementary	AI Act
95 Controllability			44
277 Ontology			44
266 Autonomy		Article 007	44
278 Controller			44
95 Controllability			44
275 Functional safety			44

OPTIONAL INFORMATION

Name and Surname: | Affiliation and Qualification: | LinkedIn: ... other

Observations

ID 44 **8200** -

Specification Controllability of automated AI systems

Relationship with AI Act Article 007 (Autonomy)

Link <https://www.iso.org/standard/83012.html>

Scope TS This document specifies a basic framework with principles, characteristics and approaches for the realization and enhancement for automated artificial intelligence (AI) systems' controllability. The following areas are covered:
 — state observability and state transition;
 — control transfer process and cost;
 — reaction to uncertainty during control transfer;
 — verification and validation approaches.

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ID 24 **23894** -

Specification Guidance on risk management

Relationship with AI Act Article 010, Article 017 (Design); Article 017 (Leadership); Article 017, Article 009, Article 012, Article 006, Article 007 (Risk management); Article 006 (Products)

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:23894:ed-1:v1:en>

Scope This document provides guidance on how organizations that develop, produce, deploy or use products, systems and services that utilize artificial intelligence (AI) can manage risk specifically related to AI. The guidance also aims to assist organizations to integrate risk management into their AI-related activities and functions. It moreover describes processes for the effective implementation and integration of AI risk management. The application of this guidance can be customized to any organization and its context.

Terms	Variant	Complementary	AI Act
101 Risk management			Article 017, Article 009, Article 012, Article 006, Article 007
86 Leadership			Article 017
34 Design			Article 010, Article 017
90 Evaluation			
91 Improvement			
160 Risk treatment			
112 Monitoring			
235 Processes			
236 Products			Article 006

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Observations

ID 13 **24027** -

Specification Bias in AI systems and AI aided decision making

Relationship with AI Act Article 010, Article 017 (Design); Article 015, Article 017, Article 009 (Lifecycle)

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:tr:24027:ed-1:v1:en>

Scope This document addresses bias in relation to AI systems, especially with regards to AI-aided decision-making. Measurement techniques and methods for assessing bias are described, with the aim to address and treat bias-related vulnerabilities. All AI system lifecycle phases are in scope, including but not limited to data collection, training, continual learning, design, testing, evaluation and use.

Terms	Variant	Complementary	AI Act
51 Functional correctness			
16 Characteristics of the data sets may be met at			
14 Bias			
106 Data bias			
34 Design			Article 010, Article 017
49 Lifecycle			Article 015, Article 017, Article 009
107 Software testing			
108 Social responsibility			

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Observations

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ID 38 **25012** -

Specification **Data quality model**

Relationship with AI Act **Article 017, Article 005 (Accessibility); Article 015 (Accuracy); Article 017 (Compliance); Article 010 (Consistency); Article 012 (Traceability); Article 010 (Data quality)**

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:25012:ed-1:v1:en>

Scope This International Standard defines a general data quality model for data retained in a structured format within a computer system. This International Standard focuses on the quality of the data as part of a computer system and defines quality characteristics for target data used by humans and systems.

Terms	Variant	Complementary	AI Act	
2 Accuracy			Article 015	38
20 Completeness				38
27 Currentness				38
21 Compliance			Article 017	38
26 Credibility				38
1 Accessibility			Article 017, Article 005	38
25 Consistency			Article 010	38
39 Efficiency				38
75 Understandability				38
73 Traceability			Article 012	38
56 Precision				38
116 Data quality			Article 010	38
163 Data quality model				38
259 Quality characteristics				38
23 Confidentiality				38
141 Availability				38
55 Portability				38
59 Recoverability				38

OPTIONAL INFORMATION

Name and Surname Affiliation and Qualification LinkedIn ... other

Observations

ID 25 **25019** -

Specification **Quality-in-use model**

Relationship with AI Act **Article 017, Article 005 (Accessibility); Article 017 (Compliance); Article 017 (Post-market); Article 010 (Data quality); Article 004 (Experience)**

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:25019:ed-1:v1:en>

Scope This document defines a quality-in-use model composed of three characteristics (which are further subdivided into sub-characteristics) that can influence stakeholders when products or systems are used in a specified context of use. This model is applicable to the entire spectrum of information system and IT service system, including both computer systems in use and software products in use. This document provides a set of quality characteristics for specifying, measuring, evaluating and improving quality-in-use. In this document, because context of use is specified as prerequisite of quality-in-use, context of use is necessary to be re-specified to change prerequisite when a product or service intend to fulfil to context of use changes.

Terms	Variant	Complementary	AI Act	
100 Post-market			Article 017	25
112 Monitoring				25
113 Stakeholder				25
90 Evaluation				25
1 Accessibility			Article 017, Article 005	25
97 Usability				25
116 Data quality			Article 010	25
115 Customer				25
117 Information system				25
79 Organization				25
118 Quality-in-use				25
119 Risk				25
120 Society				25
121 Software quality				25
122 System				25
123 Target entity				25
125 Direct user				25
124 User				25
126 Beneficialness				25
128 Freedom from risk				25

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Observations

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ID 2

25024

Specification

Measurement of data quality

Relationship with AI Act

Article 017, Article 005 (Accessibility); Article 015 (Accuracy); Article 017 (Compliance); Article 010 (Consistency); Article 015 (Measurement and method); Article 010 (Quality criteria); Article 012 (Traceability); Article 010 (Training, validation, testing datasets)

Link

<https://www.iso.org/obp/ui/en/#iso:std:iso-iec:25024:ed-1:v1:en>

Scope

This International Standard defines data quality measures for quantitatively measuring the data quality in terms of characteristics defined in ISO/IEC 25012.

This International Standard contains the following:

- a basic set of data quality measures for each characteristic;
- a basic set of target entities to which the quality measures are applied during the data-life-cycle;
- an explanation of how to apply data quality measures;
- a guidance for organizations defining their own measures for data quality requirements and evaluation.

It includes, as informative annexes, a synoptic table of quality measure elements defined in this International standard (Annex A), a table of quality measures associated to each quality measure element and target entity (Annex B), considerations about specific quality measure elements (Annex C), a list of quality measures in alphabetic order (Annex D), and a table of quality measures grouped by characteristics and target entities (Annex E).

This International Standard does not define ranges

Terms	Variant	Complementary	AI Act	
2 Accuracy	free of errors		Article 015	2
21 Compliance	complete		Article 017	2
1 Accessibility	access		Article 017, Article 005	2
50 Measurement and method			Article 015	2
23 Confidentiality	personal data			2
11 Balance				2
26 Credibility		complementary		2
25 Consistency		complementary	Article 010	2
27 Currentness		complementary		2
76 Validation		complementary		2
40 Eliminate or reduce biased output		complementary		2
57 Quality criteria		complementary	Article 010	2
74 Training, validation, testing datasets		complementary	Article 010	2
56 Precision		complementary		2
60 Relevance		complementary		2
50 Measurement and method			Article 015	2
10 Auditability				2
142 Non-repudiation				2
73 Traceability			Article 012	2
20 Completeness				2

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Observations

ID 47

25058

Specification

Guidance for quality evaluation of AI systems

Relationship with AI Act

Article 017, Article 009, Article 012, Article 006, Article 007 (Risk management)

Link

<https://www.iso.org/obp/ui/en/#iso:std:iso-iec:ts:25058:ed-1:v1:en>

Scope

TS This document provides guidance for evaluation of artificial intelligence (AI) systems using an AI system quality model.

Terms	Variant	Complementary	AI Act	
35 Quality model				47
90 Evaluation				47
51 Functional correctness				47
78 Functional adaptability				47
280 Functional appropriateness				47
279 Functional completeness				47
208 Performance efficiency				47
97 Usability				47
207 Functional suitability				47
101 Risk management			Article 017, Article 009, Article 012, Article 006, Article 007	47
250 Societal concerns				47
131 Societal risk				47
132 Health risk				47
130 Environmental risk				47
129 Economic risk				47
281 Satisfaction				47

OPTIONAL INFORMATION

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Observations

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ID 28 **27000** -

Specification Information security management system - Overview and vocabulary

Relationship with AI Act **Article 015** (Measurement and method); **Article 017**, **Article 009**, **Article 012**, **Article 006**, **Article 007** (Risk management); **Article 009**, **Article 011** (Documented information); **Article 008** (Compliance with the requirements); **Article 009** (Measurement); **Article 009** (Residual risk); **Article 009** (Risk evaluation)

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:27000:ed-5:v1:en>

Scope This document provides the overview of information security management systems (ISMS). It also provides terms and definitions commonly used in the ISMS family of standards. This document is applicable to all types and sizes of organization (e.g. commercial enterprises, government agencies, not-for-profit organizations). The terms and definitions provided in this document
 — cover commonly used terms and definitions in the ISMS family of standards;
 — do not cover all terms and definitions applied within the ISMS family of standards; and
 — do not limit the ISMS family of standards in defining new terms for use.

Terms	Variant	Complementary	AI Act	
137 Access control				28
138 Attack				28
139 Authentication				28
140 Authenticity				28
10 Auditability				28
105 Competence				28
23 Confidentiality				28
143 Consequence				28
144 Conformity				28
143 Consequence				28
145 Documented information			Article 009, Article 011	28
146 Governance of information security				28
148 Governing body				28
91 Improvement				28
117 Information system				28
79 Organization				28
150 Internal context				28
151 Level of risk				28
152 Management system				28
153 Measurement			Article 009	28

OPTIONAL INFORMATION

Name and Surname Affiliation and Qualification LinkedIn ... other

Observations

ID 49 **29119** - **11**

Specification Guidelines on the testing of AI-based systems (2020)

Relationship with AI Act **Article 015** (Accuracy); **Article 060** (Testing); **Article 007** (Autonomy)

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:tr:29119:-11:ed-1:v1:en>

Scope This document TR (2020) provides an introduction to AI-based systems. These systems are typically complex (e.g. deep neural nets), are sometimes based on big data, can be poorly specified and can be non-deterministic, which creates new challenges and opportunities for testing them.

AWI TS under development
 This document describes testing techniques (including those described in ISO/IEC/IEEE 29119-4) applicable for AI systems in the context of the AI system life cycle model stages defined in ISO/IEC 22989. It describes how AI and ML assessment metrics can be used in the context of those testing techniques. It also maps testing processes, including those described in ISO/IEC/IEEE 29119-2, to the verification and validation stages in the AI system life cycle.

Terms	Variant	Complementary	AI Act	
2 Accuracy			Article 015	49
128 Freedom from risk				49
265 Algorithm				49
266 Autonomy			Article 007	49
14 Bias				49
283 Deep learning				49
244 Explainability				49
276 Interpretability				49
56 Precision				49
274 Robot				49
284 Test data				49
285 Metrics				49
196 Testing			Article 060	49
286 Assessment				49

OPTIONAL INFORMATION

Name and Surname Affiliation and Qualification LinkedIn ... other

Observations

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Terms	Variant	Complementary	AI Act	
80	Cleaning		Article 010, Article 017	14
87	Planning		Article 017	14
88	Support			14
89	Operation			14
90	Evaluation			14
91	Improvement			14
92	Acquisition			14
50	Measurement and method		Article 015	14
79	Organization			14
86	Leadership		Article 017	14
101	Risk management		Article 017, Article 009, Article 012, Article 006, Article 007	14
105	Competence			14
152	Management system			14

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Observations

ID 14 **42001** - **1**

Specification Management system

Relationship with AI Act Article 015 (Measurement and method); Article 010, Article 017 (Cleaning); Article 017 (Leadership); Article 017 (Planning); Article 017, Article 009, Article 012, Article 006, Article 007 (Risk management)

Link <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:42001:ed-1:v1:en>

Scope This document specifies the requirements and provides guidance for establishing, implementing, maintaining and continually improving an AI (artificial intelligence) management system within the context of an organization. This document is intended for use by an organization providing or using products or services that utilize AI systems. This document is intended to help the organization develop, provide or use AI systems responsibly in pursuing its objectives and meet applicable requirements, obligations related to interested parties and expectations from them. This document is applicable to any organization, regardless of size, type and nature, that provides or uses products or services that utilize AI systems.

Terms	Variant	Complementary	AI Act	
247	Documentation			33
34	Design		Article 010, Article 017	33
248	Information quality			33
247	Documentation			33
246	Technical documentation		Article 011	33

OPTIONAL INFORMATION

Name and Surname: | Affiliation and UNI Qualification: | LinkedIn: ... other

Observations

ID 33 **82079** - **1**

Specification IEC Part 1: principles and general requirements

Relationship with AI Act Article 010, Article 017 (Design); Article 011 (Technical documentation)

Link <https://www.iso.org/obp/ui/en/#iso:std:iec-ieee:82079:-1:ed-2:v1:en,fr>

Scope ISO/IEEC 82079-1 provides general principles and detailed requirements for the design and formulation of all type of instruction for use that will be necessary or helpful for users of products