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Webinar II: Privacy, Data Protection, and Standards: Engineering European Values

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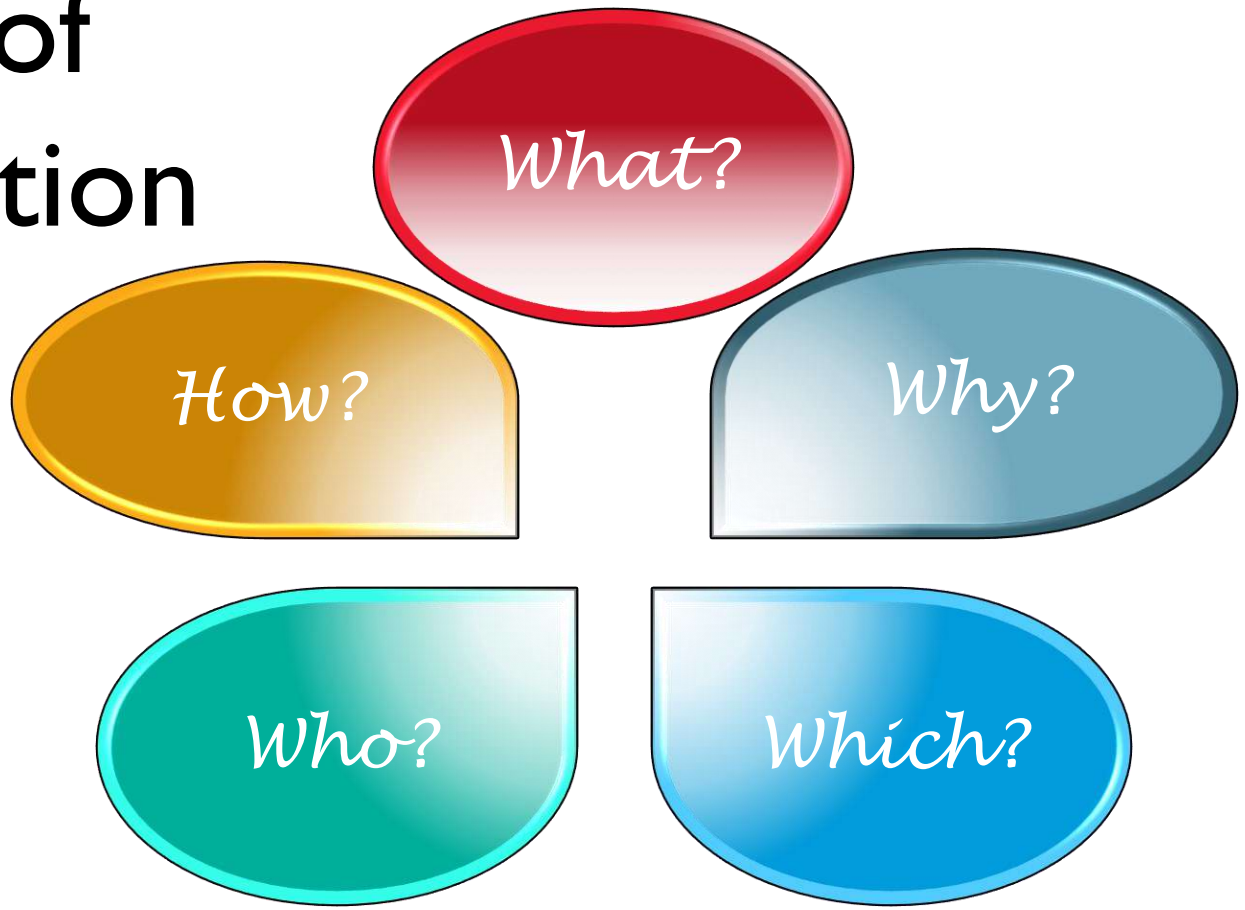
iptc Information Processing and Telecommunications Center

The 5 W's of Standardization



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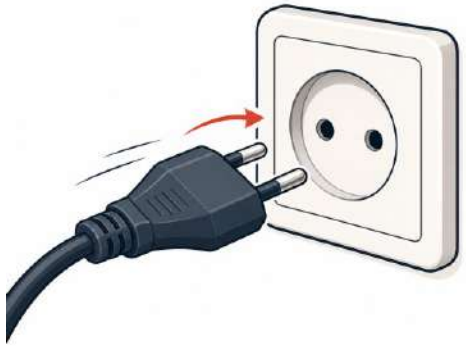

What?

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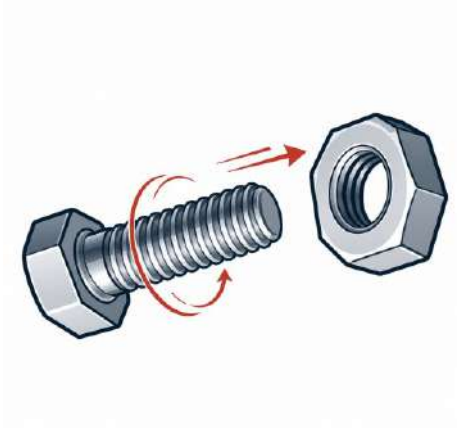
Agreement

- Arbitrary but reasonable



Good quality

- Certifiable (not always e.g. ESR)

Normal

- Common interoperability

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de iure

de facto

NSBs

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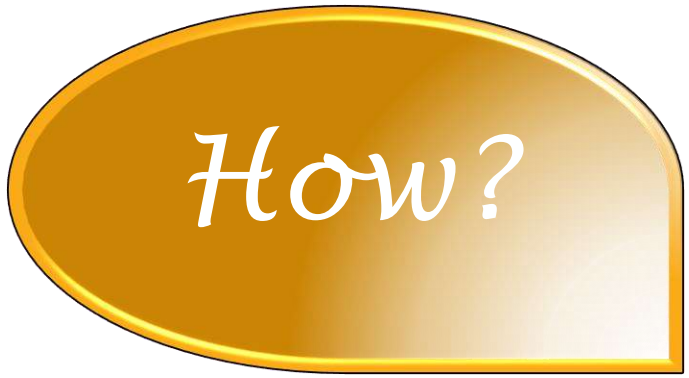

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write

European Standardisation Organisations (ESOs) and National standardisation bodies (NSBs)

Technical Committees (TCs) and Working Groups (WGs)

… potentially through liaisons with outside organizations

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- Learn the state of practice
- Align with state of practice
- Get certified
- Comply with law?

read

write

- Commoditization
- Interoperability
- Cross selling
- Policy at small and large

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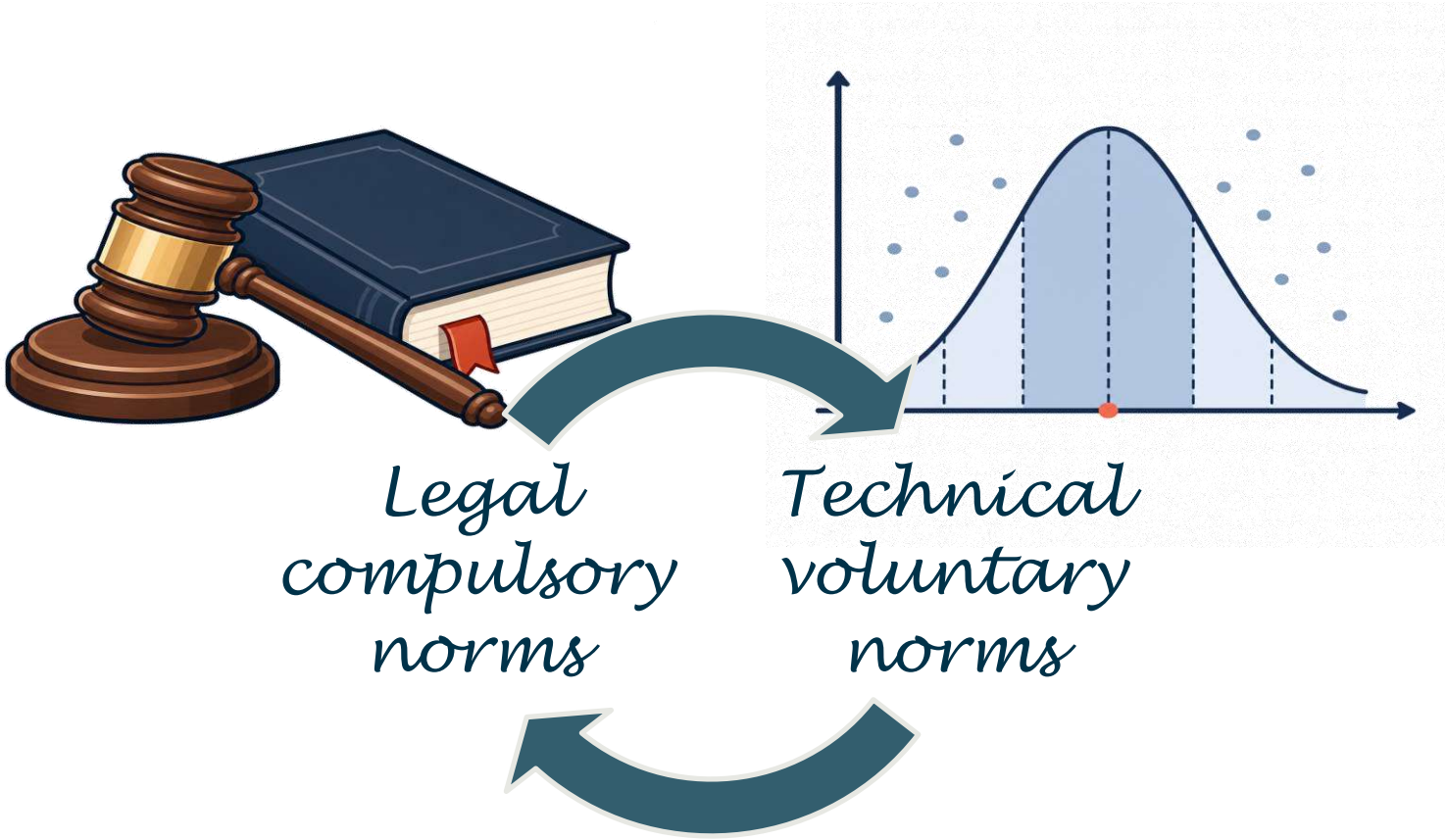

Standards may entail
legal compliance through…

- Harmonised standards
  - (voluntary but presumptive compliance)
- Technical specifications eligible
- Implementing acts
- Mandates to SDOs
  - …and mandates to agencies to contribute
- Best available techniques

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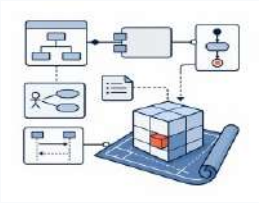
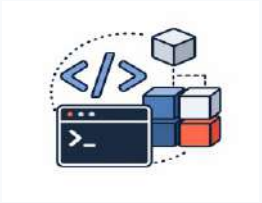
Communications protocols



Modelling languages



Programming languages

Encryption algorithms

Extrafunctional guidance

Codecs and data formats

Authentication mechanisms

Service management methods

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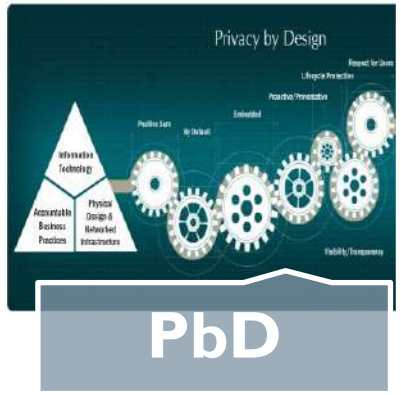
The gap in privacy engineering

Engineers find…

GDPR

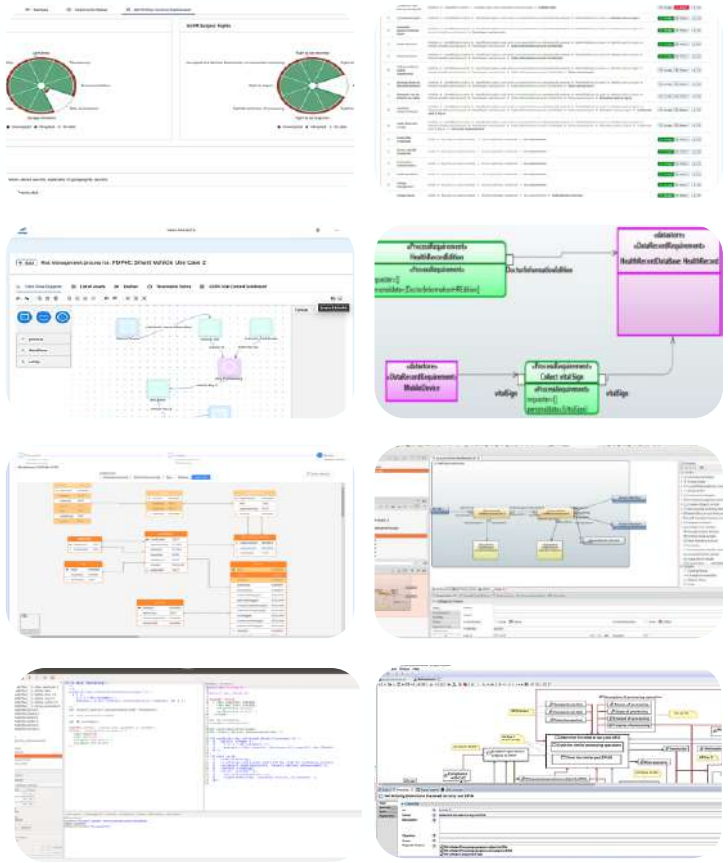


PbD

PETs

PPM/PEM

…but would like to get…



…because they need…

- Systematic and cost-effective engineering methods and tools.
- Operationalizing Privacy and Data Protection
- Shifting left throughout the development lifecycle

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Standards for privacy engineering:

Security foundations / evaluation baseline

ID	Short name	Role
ISO/IEC 27001	ISMS	Security governance baseline.
ISO/IEC 27002	Security controls	Control catalogue baseline.
ISO/IEC 15408	Common Criteria	Product security evaluation.
ISO/IEC TS 19608	CC privacy requirements	Privacy requirements via Common Criteria.

Core privacy framework and architecture

ID	Short name	Role
ISO/IEC 29100	Privacy framework	Core privacy concepts and principles.
ISO/IEC 29101	Privacy architecture	ICT privacy architecture.
ISO/IEC 27561	POMME	Operationalizes privacy principles.
OASIS PMRM	PMRM	Privacy operations model.

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Privacy engineering process / lifecycle

ID	Short name	Role
ISO/IEC TR 27550	PE lifecycle	Privacy engineering across SDLC.
ISO/IEC TS 27564	Privacy models	Model-based privacy engineering.
IEEE 7002	Data Privacy Process	Privacy engineering process.
ISO 31700-1	Consumer PbD	Consumer privacy by design.
ISO 31700-2	Pbd Use cases	Consumer Pbd examples

Governance, risk, assessment, and controls

ID	Short name	Role
ISO/IEC 27701	PIMS	Privacy management system.
ISO/IEC 29134	PIA	Privacy impact assessment.
ISO/IEC 27557	Privacy risk	Organizational privacy risk management.
ISO/IEC 29151	PII controls	PII protection controls.

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Data minimisation, deletion, de-identification, and PETs

ID	Short name	Role
ISO/IEC 27555	PII deletion	PII deletion lifecycle.
ISO/IEC 20889	De-identification	De-identification taxonomy.
ISO/IEC 27559	De-identification framework	Re-identification risk management.
ISO/IEC 27565	ZKP privacy	Zero-knowledge proof guidance.

Transparency, consent, and preferences

ID	Short name	Role
ISO/IEC 29184	Notices & consent	Online notices and consent.
ISO/IEC TS 27560	Consent records	Interoperable consent records.
ISO/IEC 27556	Privacy preferences	User privacy preference handling.
W3C DNT	Do Not Track	Browser tracking preference signal.

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Sector / technology-specific privacy

ID	Short name	Role
ISO/IEC 27018	Cloud PII controls	Cloud processor privacy controls.
ISO/IEC DIS 27091	AI privacy	AI/ML privacy risk guidance.
ISO/IEC 27566-1	Age assurance	Privacy-aware age assurance.
ISO/IEC 27570	Smart-city privacy	Smart-city privacy guidance.
ISO/IEC 27562	Fintech privacy	Fintech privacy controls.
ISO/IEC 27400	IoT security & privacy	IoT security/privacy guidance.
ISO/IEC 27402	IoT device baseline	IoT device privacy baseline.

Semantic / protocol-level privacy support

ID	Short name	Role
W3C DPV	DPV	Machine-readable privacy vocabulary.
IETF RFC 6973	Privacy Considerations	Protocol privacy review.

…➔ ISO - IPEN Wiki
https://ipen.trialog.com/wiki/ISO

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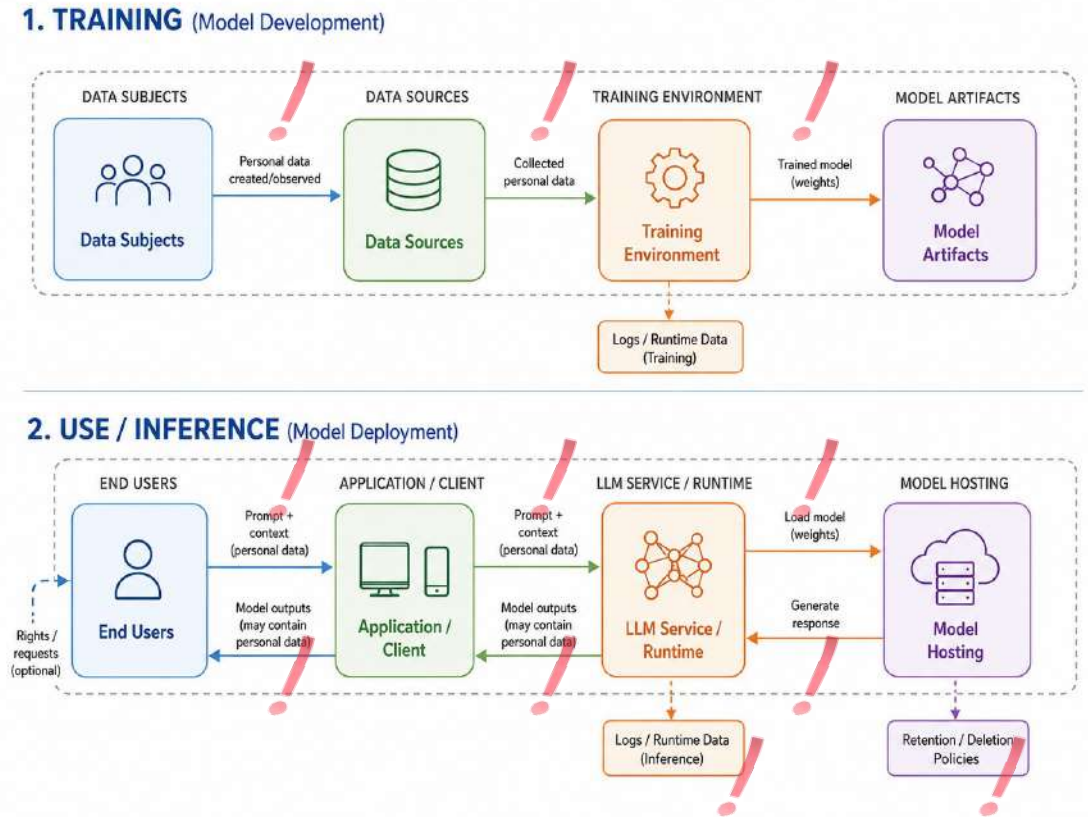
Privacy issues in generative AI



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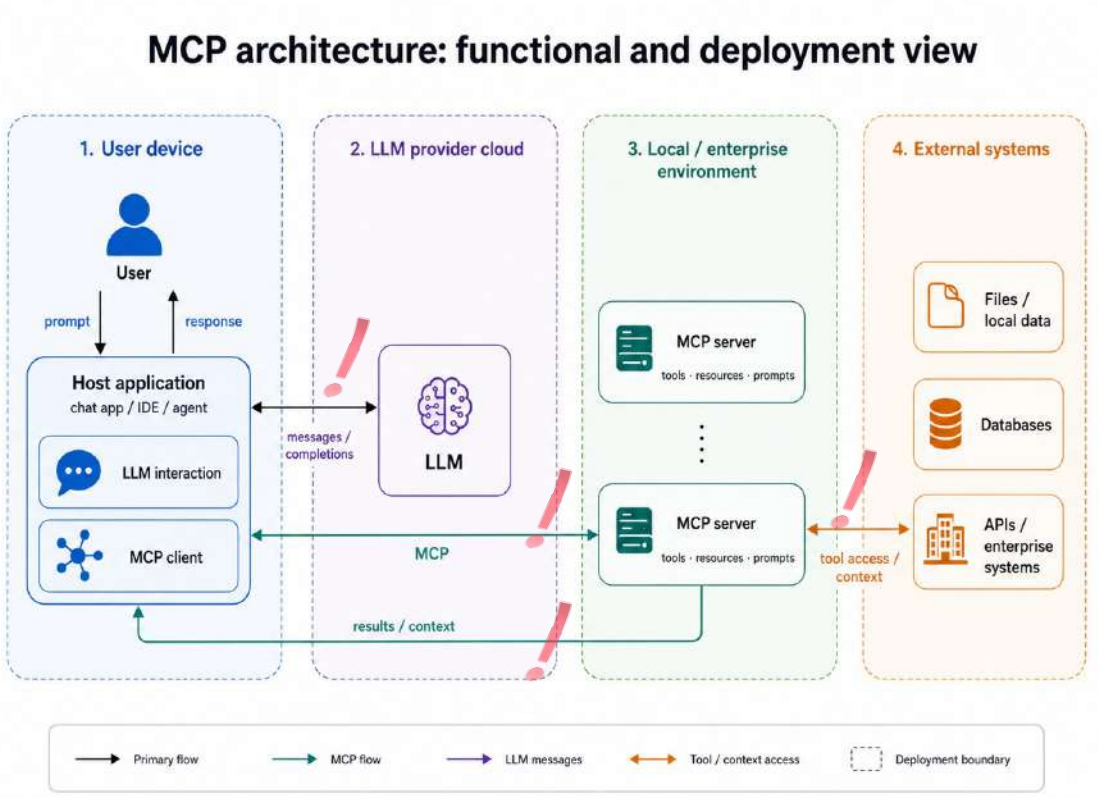
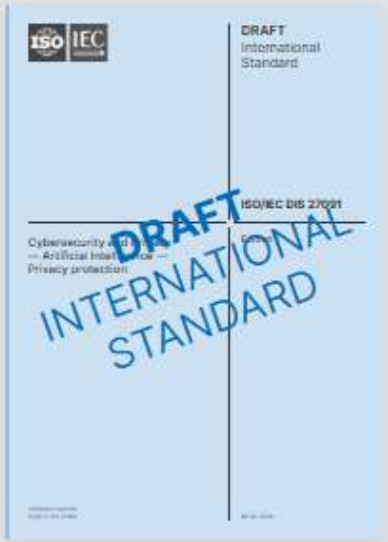
Privacy issues in generative AI





Read sample

ISO/IEC DIS 27091

Cybersecurity and Privacy — Artificial Intelligence — Privacy protection

Under development

This Draft International Standard is in the enquiry phase with ISO members.

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