What Information is Being Shared Today?

Enabling AI and Machine Learning Through Public-Private Partnerships – July 17, 2024

Information Resources

- SDO Standards Portfolios
  - Overviews by technology area (existing and planned standards)
  - How to participate

- Standards Landscapes
  - By technology area – compilation of current activities
  - Produced by the private sector, government agencies

- Assessments/Studies
  - Private sector- and government-authored
  - Collection/synthesis of standards-related data

- Standards Coordination Roadmaps
  - to assess and address standardization needs in a particular industry or technology area
  - identify existing standards and standards in development
  - define where standards gaps exist
  - intended to inform resource allocation, avoid duplication of effort, and coordinate standards actions

ANSI

ANSI Standards Action

- *Standards Action* provides timely, accurate information about current standards development work in which ANSI plays a role.
- The publication is designed to facilitate participation in the [American National Standards (ANS) development process](#) as well as other domestic, regional, and international standardization activities advanced by ANSI.
  - Includes current work underway at the [International Organization for Standardization (ISO)](#), the [International Electrotechnical Commission (IEC)](#), and [ISO/IEC Joint Technical Committee (JTC) 1](#), through U.S. Technical Advisory Groups (TAGs)

- Each weekly edition – available by download or free email subscription – comprises a round-up of the latest information available to help all interested parties get informed and engaged in standards.

ANSI Standardization Collaboratives

Advance **cross-sector coordination** in the standards and conformance programs needed to support and grow **emerging technologies and markets**

Active Collaboratives:

2017: Unmanned Aircraft Systems Standardization Collaborative

2016: America Makes & ANSI Additive Manufacturing Standardization Collaborative

2011: ANSI Electric Vehicles Standards Panel

2004: Nanotechnology Standards Panel

2003: Homeland Defense and Security Standardization Collaborative

Previous Collaboratives:

2013: ANSI Network: Smart and Sustainable Cities

2012: ANSI Energy Efficiency Standards Coordination Collaborative

2010: ANSI-NIST Nuclear Energy Standards Coordination Collaborative

2010: The Financial Management of Cyber Risk

2007: ANSI Network on Chemical Regulations

2007: Biofuels Standards Coordination Panel

2006: ID Theft Prevention and ID Management Standards Panel

2005: Healthcare Information Technology Standards Panel

1994: Information Infrastructure Standards Panel
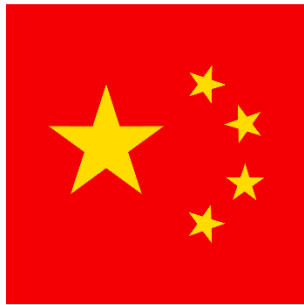
Global AI Standards Landscape

ISO/IEC JTC1/SC 42
Horizontal ICT AI Standards

Significant initiative on Ethics

Focus on telecom networks & some applications

Comprehensive national AI standards, participation in ISO/IEC, ITU

EU AI Act driving EU-specific standards, collaborating with ISO/IEC

US and ISO/IEC JTC 1/SC 42

- US is focused on developing international AI standards
- US stakeholders led the formation of international AI Standards committee ISO/IEC JTC 1 SC 42; US holds chair and committee management positions
- US companies, institutions and govt. agencies (including NIST, NSA, FDA) are participating actively in SC 42

JTC 1/ SC 42 work program examples

Published	Under development
• AI concepts and terminology	• Functional safety and AI systems
• Governance implications on use of AI	• Guidance for explainability, transparency, mitigating unwanted bias
• Guidance on Risk Management	• Data quality management and governance
• Overviews of trustworthiness, bias, ethical and societal concerns	• AI system testing, verification and validation, quality models, functional safety, lifecycle
• Framework for machine learning systems	• Oversight of AI systems
• Assessments of robustness, ML classification performance	• AI applications, beneficial use cases
• AI Management System	• Environmental sustainability aspects

50 Countries	1 Country 1 Vote	33 Active Projects	30 Published	40+ Liaisons
				IEEE OECD BETTER POLICIES FOR BETTER LIVES European Commission ITU

Sector-focused Standards

- In industries that are coming to rely heavily on AI, sector-specific standards projects are also beginning to emerge in ISO and IEC committees, as well as in other venues:
    - Automotive/aerospace: *SAE International, ULSE*
    - Financial Services: *Accredited Standards Committee X9*
    - *Healthcare: AAMI, ADA, CTA, DICOM, etc.*
    - Consumer IoT: *CTA, etc.*
    - Biotechnology: *American Type Culture Collection*

Objectives for AI Standards Engagement

- Scientifically sound standards that are accessible and amenable to adoption
- Standards that reflect the needs and input of diverse global stakeholders
- Standards that are developed in a process that is open, transparent, and driven by consensus
- International relationships that are strengthened by engagement on AI standards

Private Sector Priorities

- Regular government engagement with private sector stakeholders on both AI-related technical issues and broader AI standards and policy discussions
- Government recognition that many priority interactions will depend on private-sector leadership and joint efforts from the global AI and standards communities.
- Consideration of the full standards lifecycle—including research and related technical activities—as well as the full range of issues, both technical and societal, associated with standards for AI applications

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