Architecture, Ethics & Responsible AI: Trustworthy Capability

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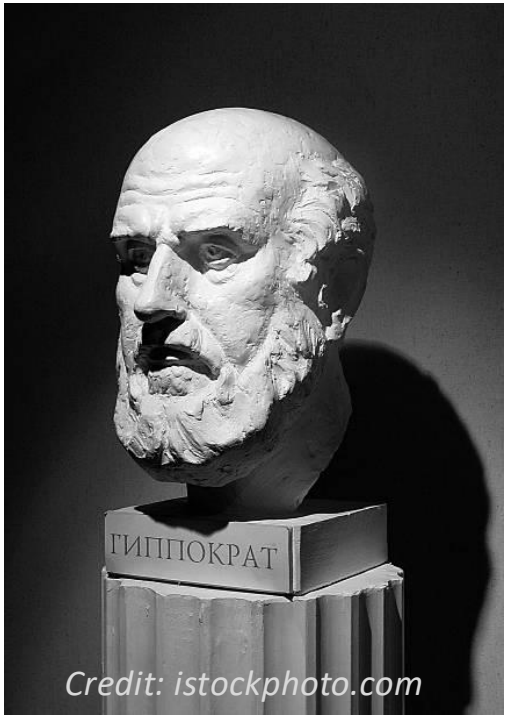
Session topics

Setting the context	Grappling with ethical principles Responsible & trustworthy
Architecture in a product or programme lifecycle	Inception to delivery (and beyond) Frameworks galore
Case study	UK national service – Report Fraud
Wrap up and discussion	Q&A

Ethical principles aren’t new



Credit: istockphoto.com

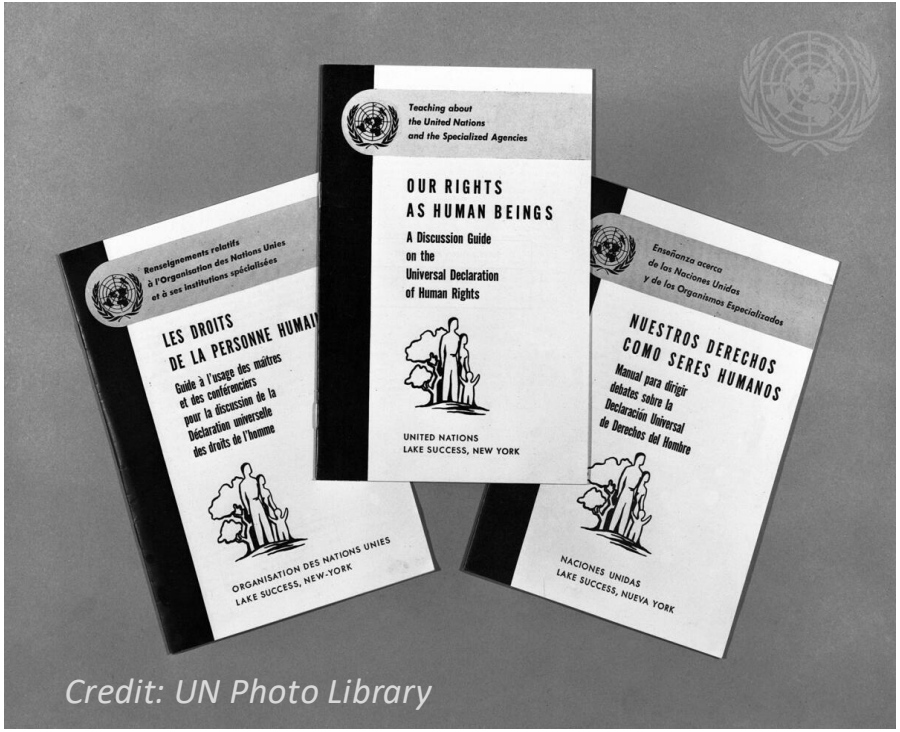
Hippocratic Oath interpretation

- Patient Centric Care
- Informed Consent and Transparency
- Ethical Decision-Making

Medical ethics

Hippocrates, ~400 BCE

Ethics in the modern world



Credit: UN Photo Library

Pillars of society

- Education
- Justice
- Privacy
- Equality, …

Human Rights

United Nations, December 1948

Never short of a framework

Some useful references

- ETSI Securing Artificial Intelligence (SAI); Baseline Cyber Security Requirements for AI Models and Systems EN304 223
- SCL AI Contractual Clauses
- AI Standards Hub
- NPL A Life Cycle For Trustworthy and Safe Artificial Intelligence Systems
- Turing Commons
- UK Gov Data and AI Ethics Framework
- FS Sector Coordinating Council AI deliverables
- The Vector Institute's AI Trust and Safety Principles

https://www.etsi.org/deliver/etsi_en/304200_304299/304223/02.01.01_60/en_304223v020101p.pdf

https://www.scl.org/13004-society-for-computers-and-law-ai-group-launches-artificial-intelligence-contractual-clauses/

https://aistandardshub.org/ai-standards-search/

https://eprintspublications.npl.co.uk/9995/1/MS57.pdf

https://alan-turing-institute.github.io/turing-commons/

https://www.gov.uk/government/publications/data-ethics-framework/data-and-ai-ethics-framework

https://fsscc.org/ai-deliverables/

https://vectorinstitute.ai/ai-trust-and-safety-principles/

Lifecycle and assurance questions

Products & programmes are seeking to

- Discover
- Design
- Develop
- Deploy

- Through Life Support
- End of Life

Is it Useful?

Is it Legal?

Is it Ethical?

UK case study: go-live 2025

- Report Fraud is the place to tell the police about cyber crime and fraud
- Victim Services offers dedicated, and specialist help to victims
- Analysis Services are responsible for the assessment of reports, applying crime and intelligence capabilities

Hosted by the City of London Police as the UK policing lead for economic crime, in partnership with other agencies

Architecture & governance

Report Fraud

Programme/Commercial Led

Architecture Led

Service & Change Boards

Design Success Board

Independent Data Ethics Advisory Council

Programme Delivery and Implementation Group

Working Groups
Security, Data, Transition etc

- Scaled Agile Framework (SAFe)
- UK Gov Technology Code of Practice
- “Conventional” design artifacts

- Clear ownership and accountabilities
- Expert input & consultation

Initial AI use cases

Reporting Services

- Speech Analytics
- Chatbot

Analysis Services

- Search Enrichment
- Others TBC

Industry practice
Subject expert input
Public perception

- Identify and be aware of potential AI-enabled capabilities
- Consider at early-stage the data and ethics aspects
- Agree on applicable assessment framework(s)
- Support decision making through governance & scrutiny

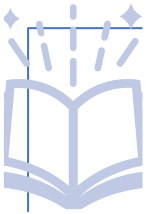
Independent Data Ethics Advisory Council

Design Success Board

AI-Data ethics assessment

Business need

- Benefits
- Options



Regulatory alignment

- Applicable
- Compliant

Robust implementation

- Skills
- Methods

Operational assurance

- Monitoring
- Improvement

Evolves through lifecycle

Use case assessment findings

- Regulatory aspects
  - Builds on data protection
  - Framework commonalities
- Implementation skills
  - Expertise available
  - Ask your AI friend
- Established platforms
  - Reasonable track record
  - UK sovereign

- Details not in documentation
  - Product stack hides evidence
  - Full transparency lacking
- Technology push vs business pull
  - Seen to be early adopter of AI
  - Commercial risk awareness
- Product assurance infancy
  - During implementation
  - Through service operations

Transparency – good practice

Report Fraud

Documentation > AWS AI Service Cards > Amazon Transcribe - Batch (English-GB)

Amazon Transcribe - Batch (English-GB) - AWS AI Service Cards

An AWS AI Service Card explains the use cases for which the service is intended, how machine learning (ML) is used by the service, and key considerations in the responsible design and use of the service. A Service Card will evolve as AWS receives customer feedback, and as the service progresses through its lifecycle. AWS recommends that customers assess the performance of any AI service on their own content for each use case they need to solve. For more information, please see AWS Responsible Use of AI Guide and the references at the end. Pleas
Responsible AI Policy, AWS Acceptable Use Policy, and AWS Service Terms f

This AI Service Card applies to the version of Amazon Transcribe - Batch (English-G
2023.

- Intended Use Cases
- Limitations
- Recommendations

Looking forward

- Balancing ambition, capability and confidence determines pace – must be in step with government and public appetite
- Governance for AI across UK policing is coming but not fully established
- Business and technology teams need to have a mutual understanding – AI literacy improvements needed
- Practitioners are keen to explore further use cases

Wrap up

- **Architecture provides the structure** to help organisations navigate AI
- Programme, product and architecture teams **balance innovation and risk through collaboration**
- **Governance underpins accountability** enabling evidenced decision making
- Businesses need to **demand better transparency**

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