PISTOIA ALLIANCE

UXLS Community

Workstream: UX for AI and AI for UX
Quick start learning resources

Autumn 2025

UX for AI – An ongoing conversation

This is a resource pack assembled by the UXLS AI workstream to enable UX practitioners working in the Life Sciences to get some basic understanding across three different areas:

- **When is an AI solution appropriate**
- **Agentic AI**
- **Ethical AI and trust**

This resource pack was assembled in Q1 and Q2 of 2025.

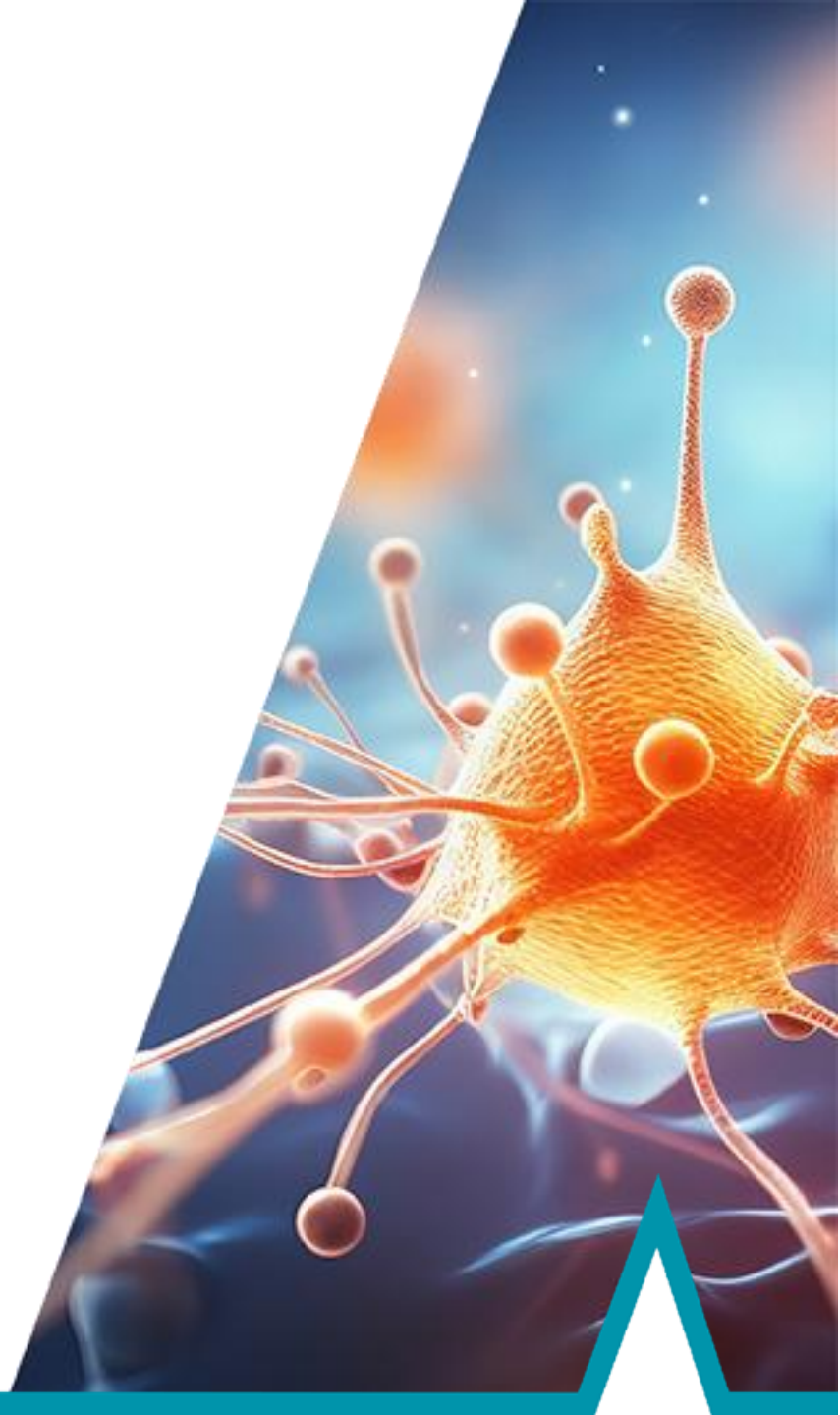
What this is isn't

A complete training course on AI - but rather a starting point to some resources we have found useful.

When is an AI solution appropriate?

Resources that cover:

1. When to use AI?
2. What flavour of AI to use?

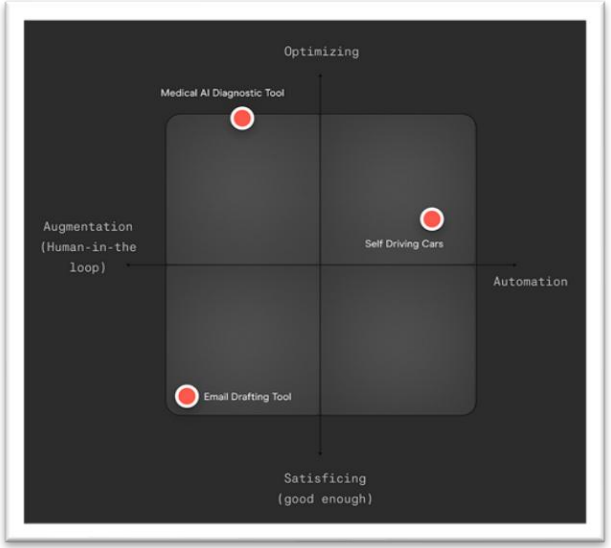


Do you need AI to solve the problem?

Useful resources to help you and your team identify which AI opportunities are the most appropriate ones for your problem space

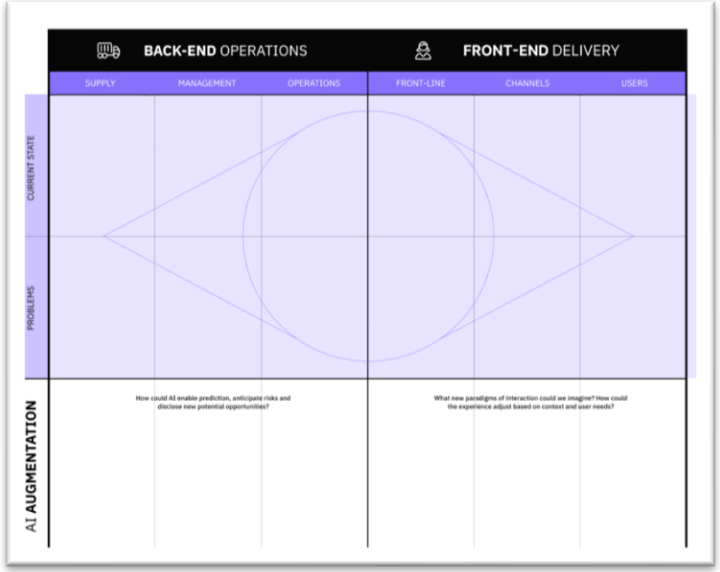
Designing AI with purpose: the AI intention matrix by Richard Yang

A framework to help teams manage the (excessive) enthusiasm to push for advanced AI features when they don't add much value to the users



AI opportunity landscape by Oblo

A framework to help teams identify which AI opportunities can be integrated based on the understanding of user needs and inspired by the technological capabilities.



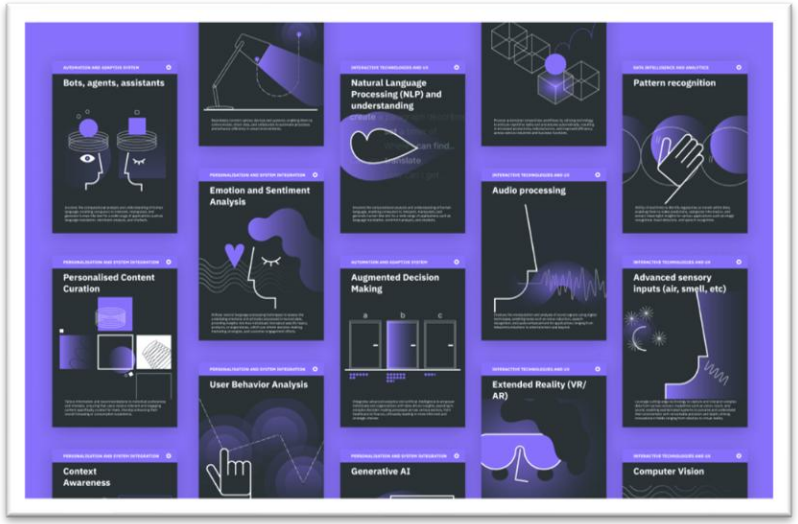
What AI capabilities do you need?

Useful resources to help you and your team identify which specific AI capabilities are most appropriate for your problem space

AI functionality cards

by Service Design tools

A set of cards of current AI capabilities to stimulate the ideation process and inform the generation of opportunities for AI in a given problem space



AI cards

by 33A

AI capability cards to help you and your team to decide where to apply AI in a given setting

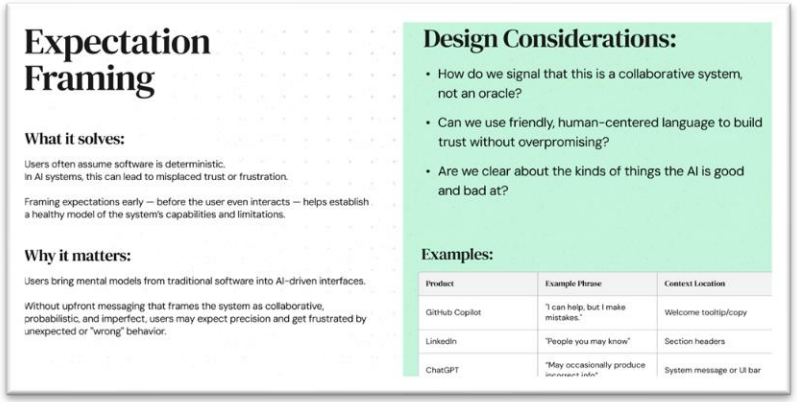
AI Design Patterns

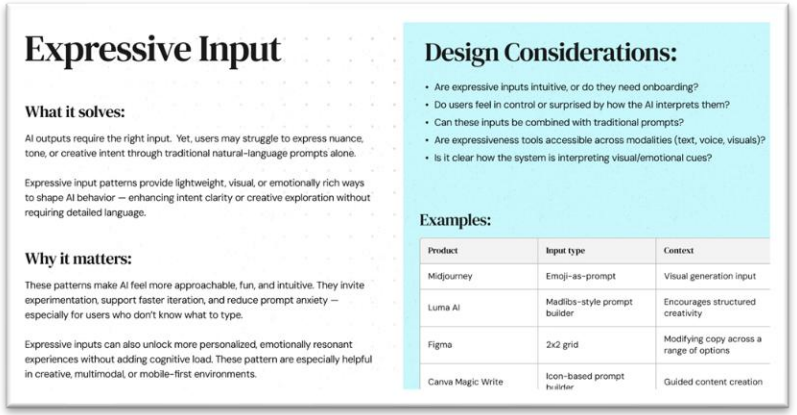
AI Design Pattern Framework for AI/UX

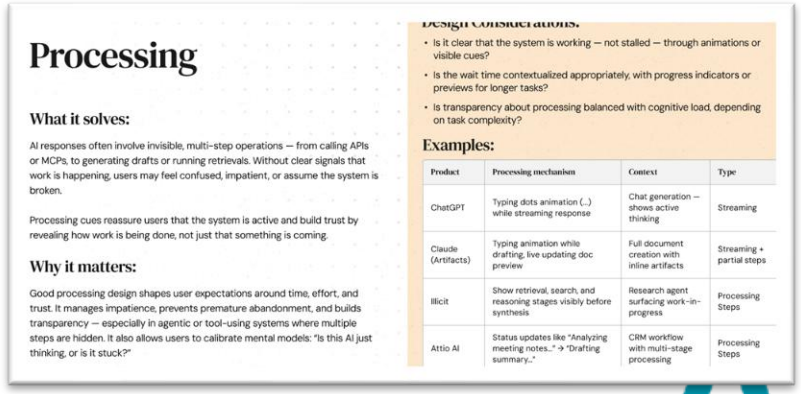
by Dave Brown

Framework to guide designers to create effective and intuitive AI experiences design principles, considerations and examples of how to address them through five different phases:

- **AI onboarding:** Expectation framing and intent scaffolding
- **User input:** Support users in creating the right inputs for AI
- **AI output:** Design good processing cues, confidence visualisation and explainability and how to support users with multiple outputs from AI
- **Undo and version control**: Design patterns to allow users to correct, reverse, or refine interactions
- **System learning:** Patterns to design how the AI system adapts, learns and improves over time



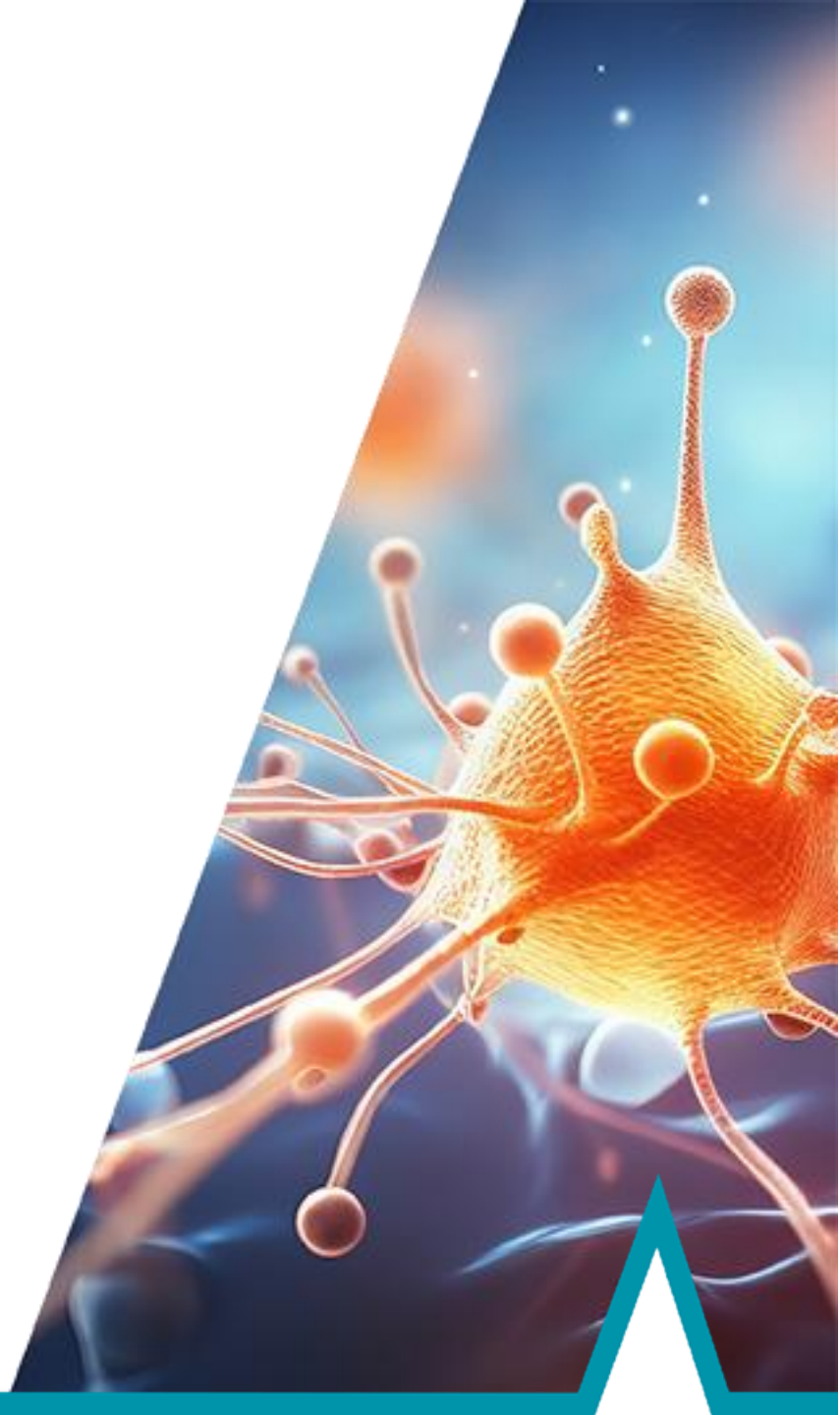




Agentic AI

Topics covered:

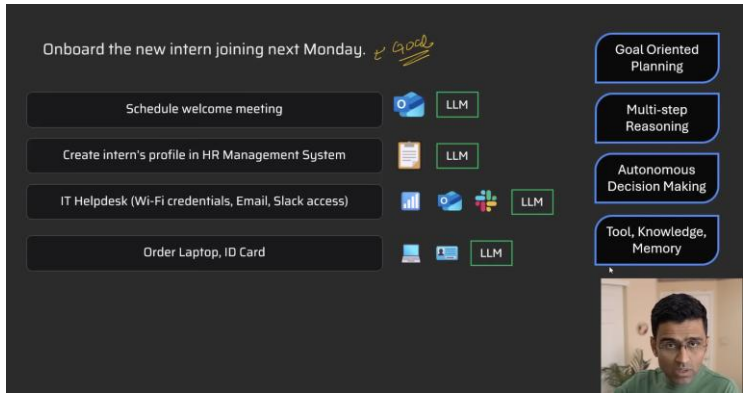
1. What is Agentic AI?
2. Agentic AI resources



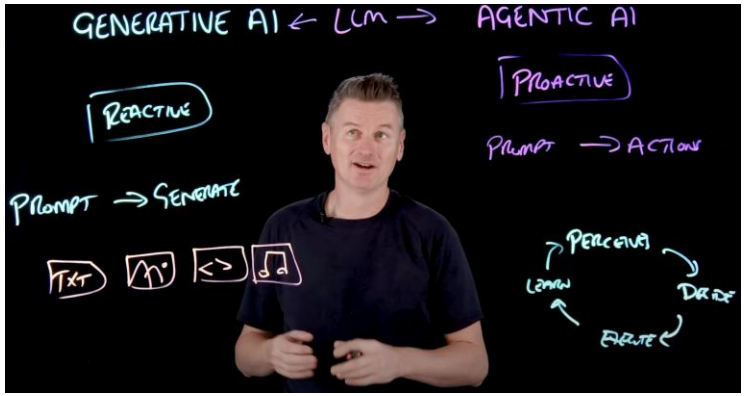
What is Agentic AI ?

We recommend the following videos that give a basic introduction to Agentic AI and provide a comparison of Agentic AI versus Generative AI with some excellent examples:

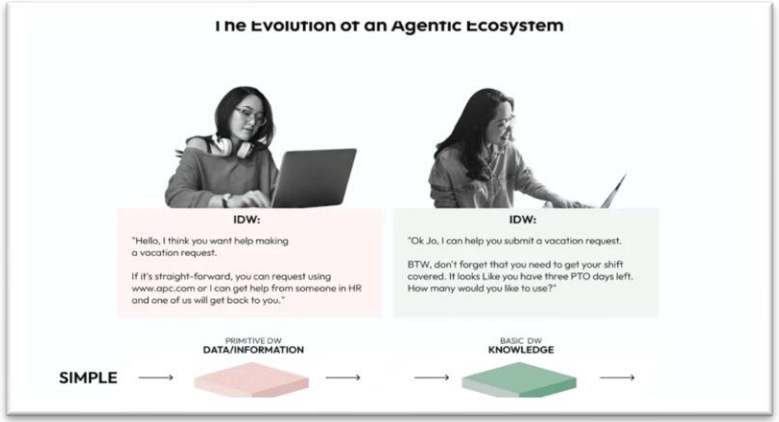
[What is Agentic AI and How Does it Work?](#)
by Codebasics



[Generative AI vs Agentic AI: Shaping the future of AI collaboration](#)
by IBM Technology

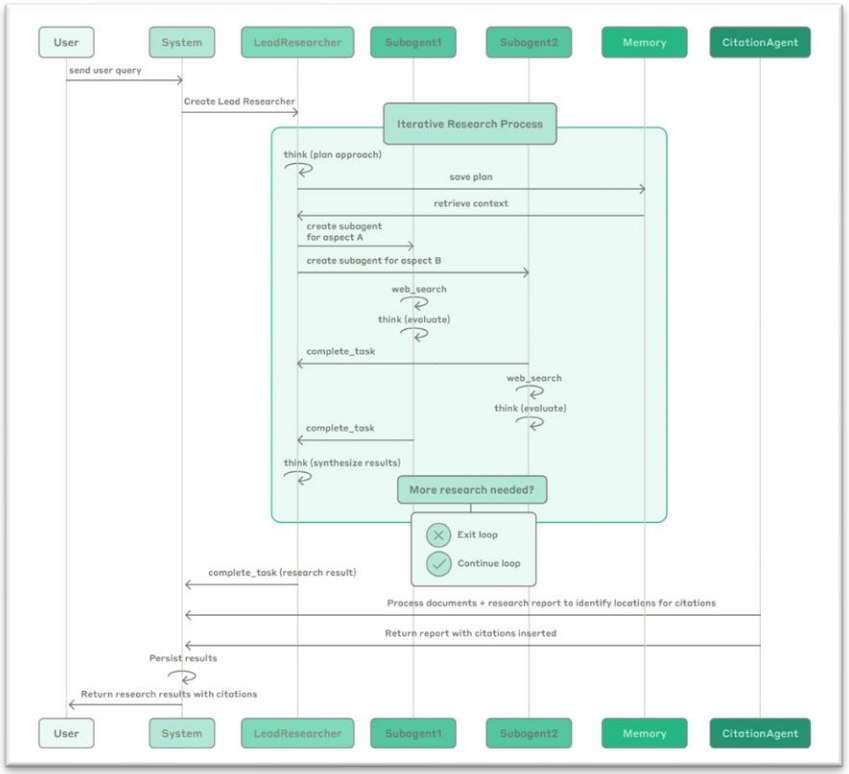


[Agentic AI: Fostering Autonomous Decision Making in the Enterprise](#)
by UX Magazine

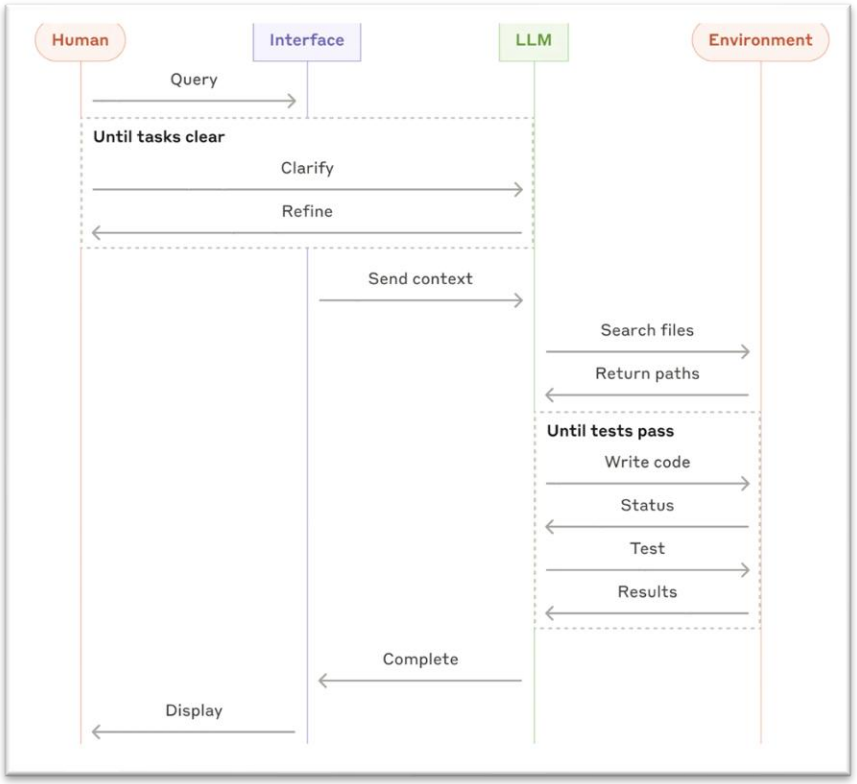


Agentic AI additional resources

Case study on how to create a multi-agent research system
by Anthropic



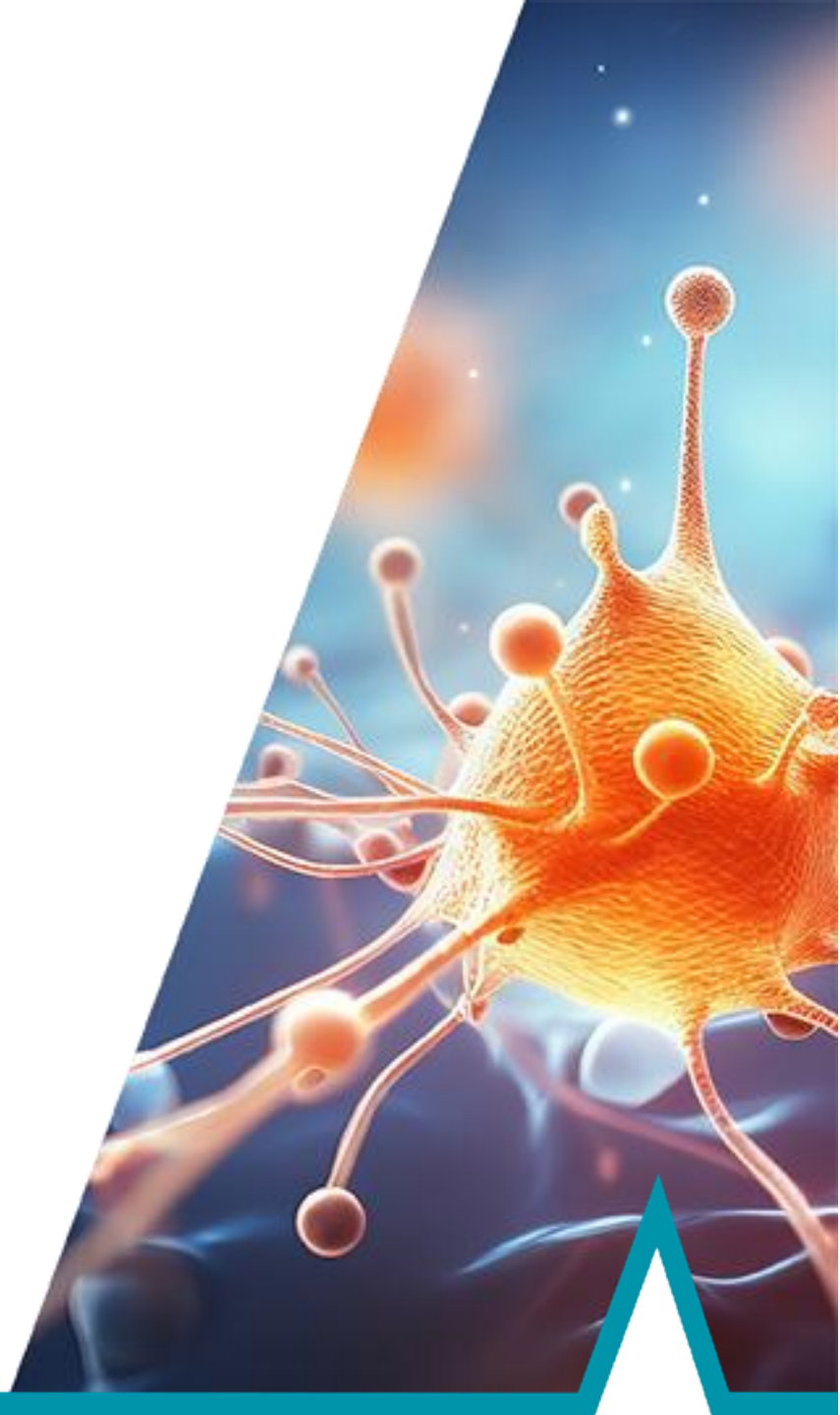
Guidelines on building effective agents
by Anthropic



Legal and ethical responsibilities

Topics covered:

1. Legal responsibilities and the EU AI act
2. Ethical responsibilities
3. GxP regulated environments

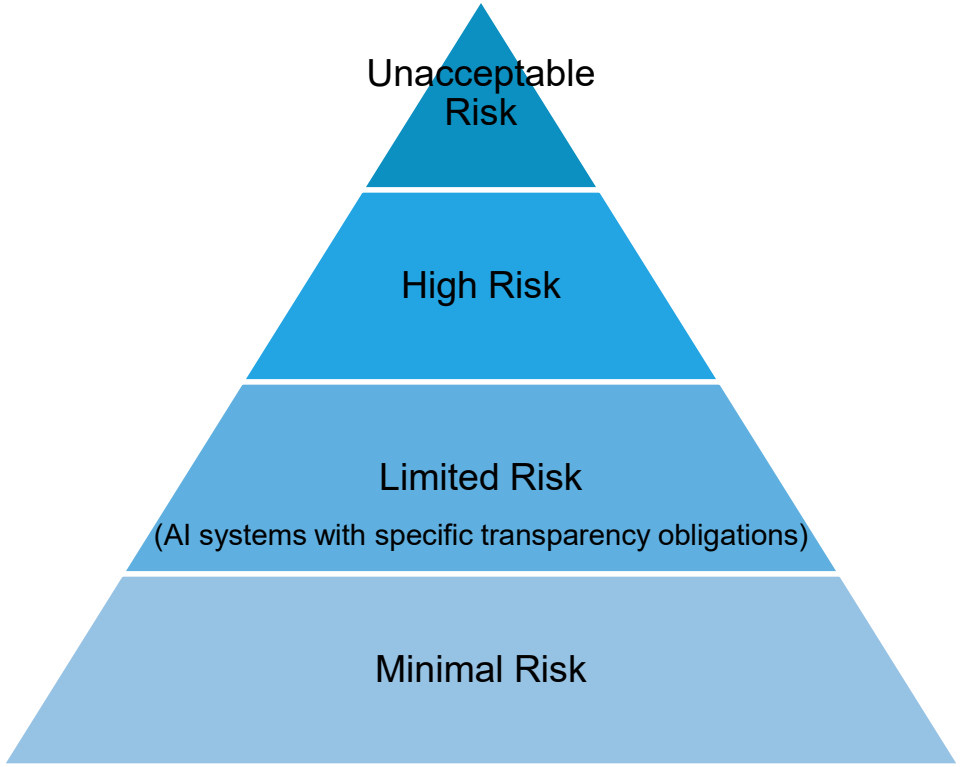


Legal responsibilities

EU AI Act (2024)

The EU AI Act introduces a uniform framework based on a forward-looking definition of AI and a risk-based approach:

- **Minimal risk:** most AI systems such as spam filters and AI-enabled video games face no obligation under the AI Act, but companies can voluntarily adopt additional codes of conduct.
- **Specific transparency risk:** systems like chatbots must clearly inform users that they are interacting with a machine, while certain AI-generated content must be labelled as such.
- **High risk:** high-risk AI systems such as AI-based medical software or AI systems used for recruitment must comply with strict requirements
- **Unacceptable risk:** for example, AI systems that allow "social scoring" by governments or companies are considered a clear threat to people's fundamental rights and are therefore banned.

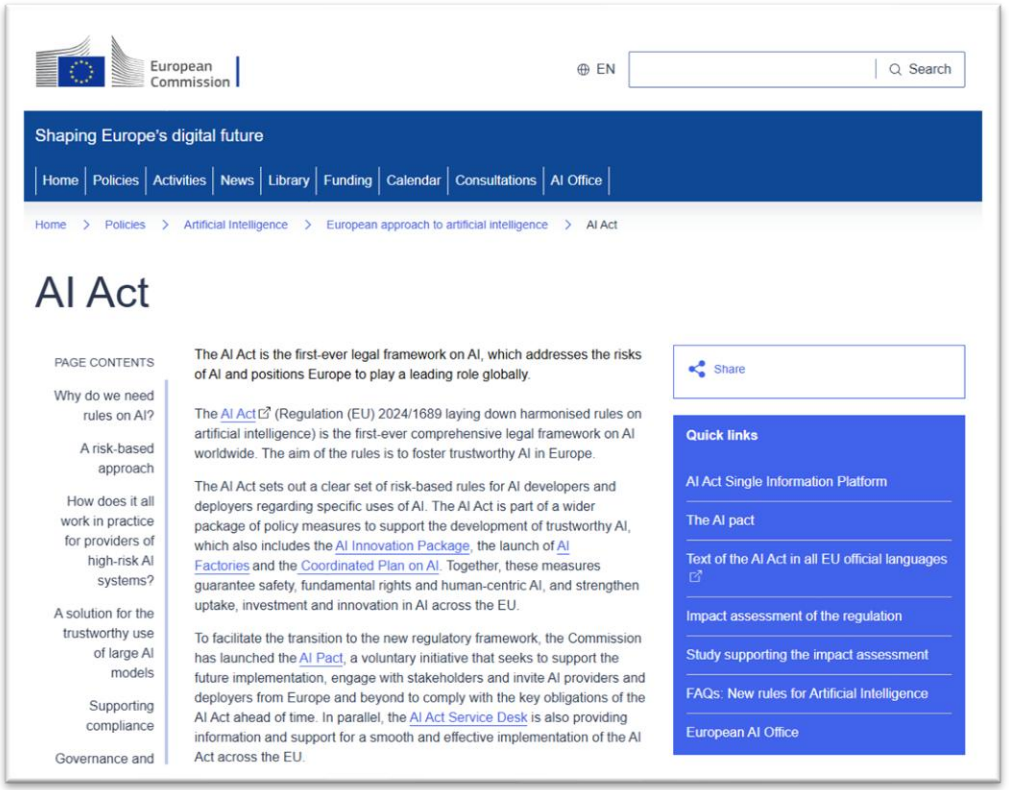


The design should accommodate for the level of risk identified and minimize this risk where possible.

Legal responsibilities

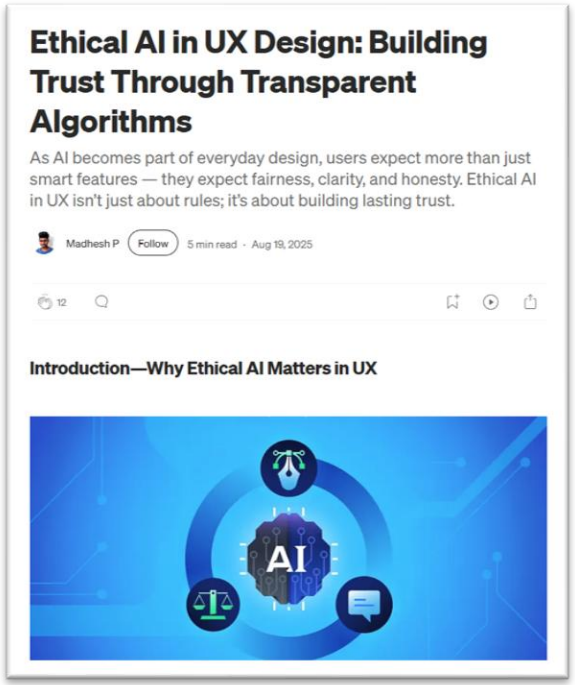
Further information on the EU AI Act (2024)

EU AI act video

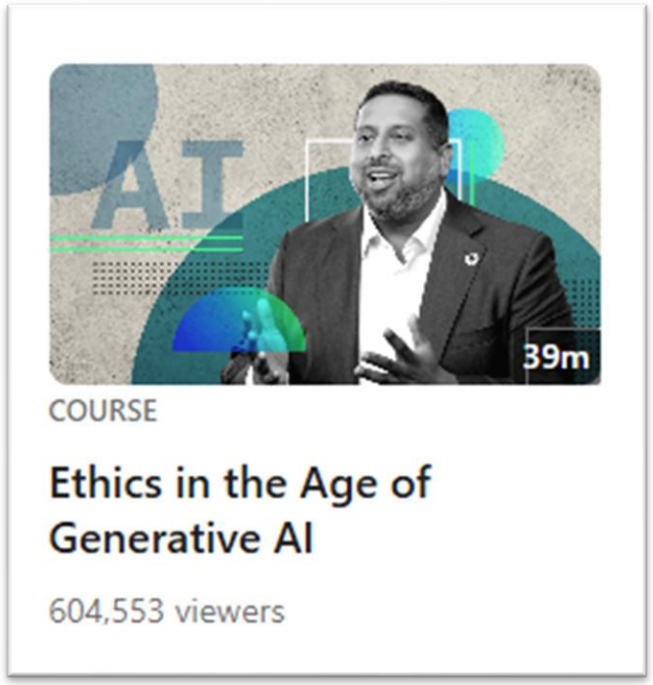


Read more: https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai

Ethical responsibilities



[Ethical AI in UX design]
by MadPesh P



[Ethics in the Age of Gen AI]
by Vilas Dhar

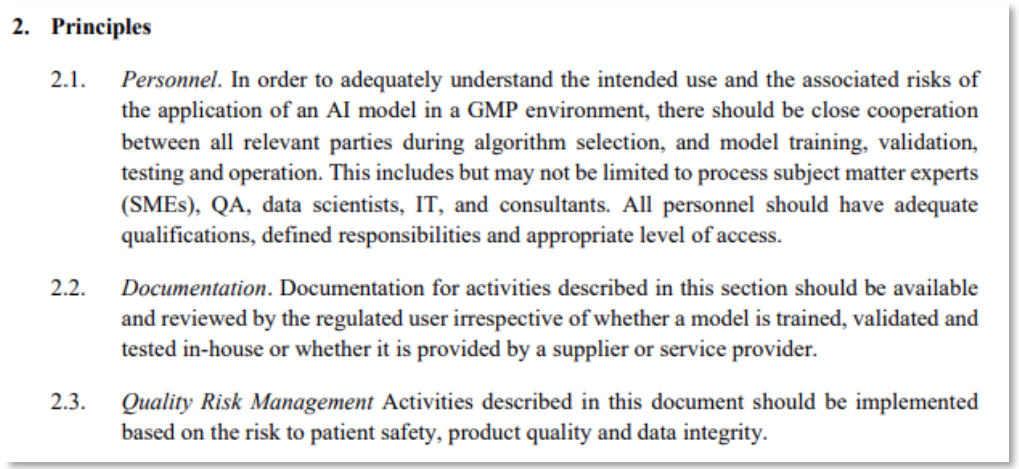
[UNESCO: Ethics of Artificial Intelligence]

GXP regulated environments – Annex 22

- Annex 22 is a newly introduced section in EudraLex Volume 4 (EU GMP Guide), specifically addressing the use of Artificial Intelligence (AI)and Machine Learning (ML) in pharmaceutical and biologics manufacturing and quality systems

- Annex 22 provides guidelines of AI usage in a GXP environment.

- It formally acknowledges AI/ML in GMP contexts—particularly for static, deterministic models with direct impact on patient safety, product quality, or data integrity



2. Principles

2.1. *Personnel*. In order to adequately understand the intended use and the associated risks of the application of an AI model in a GMP environment, there should be close cooperation between all relevant parties during algorithm selection, and model training, validation, testing and operation. This includes but may not be limited to process subject matter experts (SMEs), QA, data scientists, IT, and consultants. All personnel should have adequate qualifications, defined responsibilities and appropriate level of access.

2.2. *Documentation*. Documentation for activities described in this section should be available and reviewed by the regulated user irrespective of whether a model is trained, validated and tested in-house or whether it is provided by a supplier or service provider.

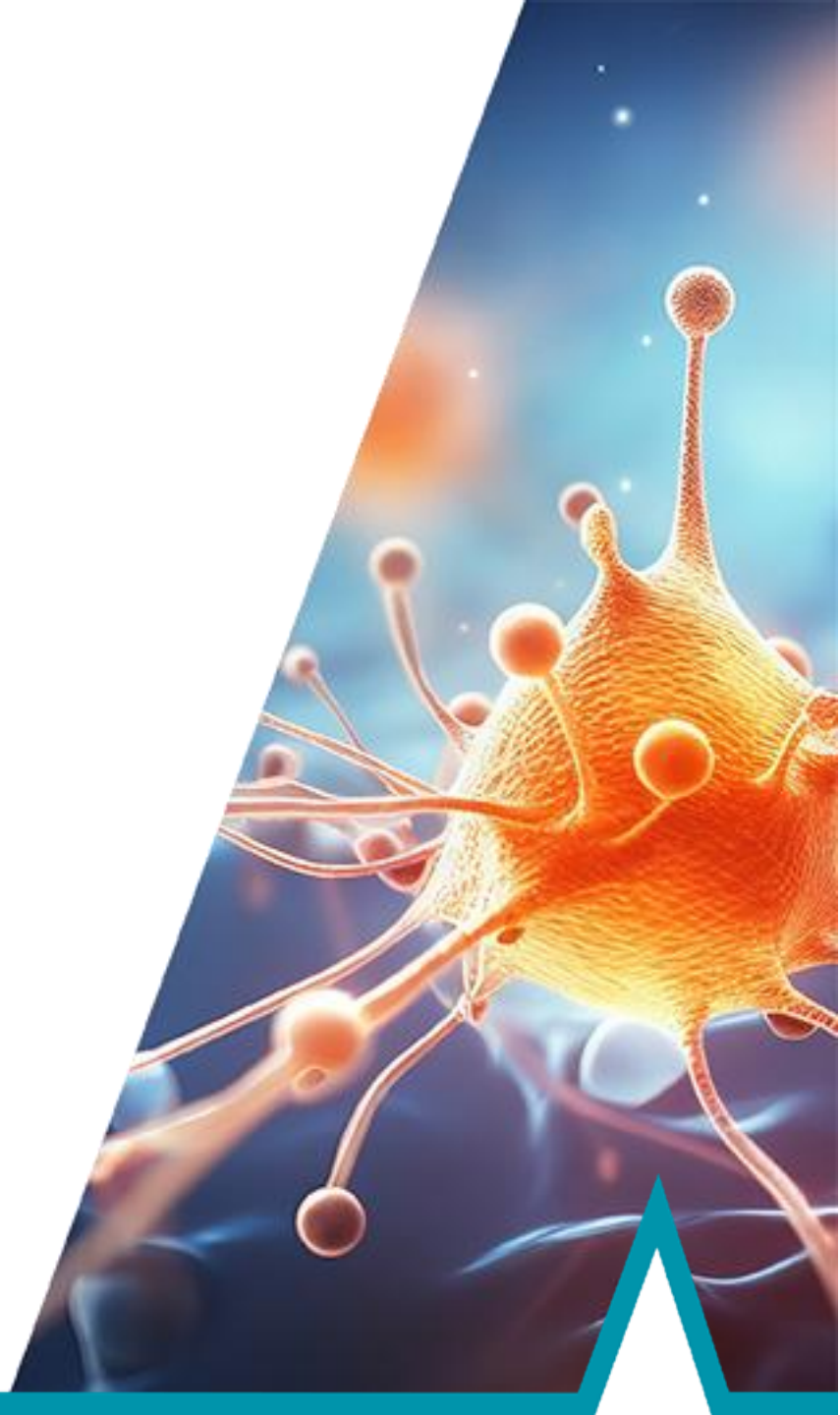
2.3. *Quality Risk Management* Activities described in this document should be implemented based on the risk to patient safety, product quality and data integrity.

Read more on the Annex 22

Evaluating AI

Topics covered:

1. Bot usability scale



Measuring Chatbots usability

Currently our workstream have not found many useful resources to measure usability of AI.

We have found mentions of chat bot usability through the Bot Usability Scale below.

Bot Usability Scale (BUS)

- Borsci, S., Malizia, A., Schmettow, M. *et al.* The Chatbot Usability Scale: the Design and Pilot of a Usability Scale for Interaction with AI-Based Conversational Agents. *Pers Ubiquit Comput* **26**, 95–119 (2022). https://doi.org/10.1007/s00779-021-01582-9

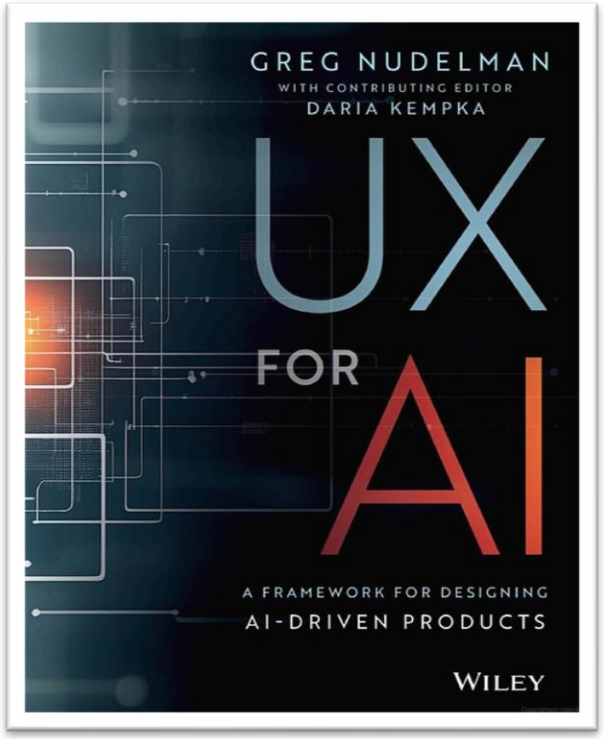
Although not specifically measuring trust the authors have identified the following to be true:

- *"It is easier to assess 'trust' in a CRM chatbot interaction by assessing the bot's capacity to provide information and helping to attain a goal (i.e. the credibility of information) instead of by assessing trustworthiness as a general and unspecified sense of trust. Assessing trustworthiness could require a different set of items more in line with trust and technology acceptance theory"*

Useful resources recommended by our workstream

Books:

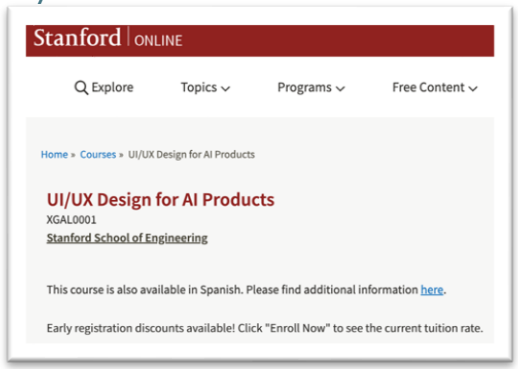
UX for AI: A Framework for Designing AI-Driven Products by Greg Nudelman



Courses:

AI Design Sprint courses by 33a.ai

UI/UX Design for AI products by Stanford



Resource created in 2025 by

AI for UX and UX for AI workstream

Pistoia Alliance UXLS Community

Workstream leads

Voula Gkatzidou (GSK)

Paula de Matos (AVEVA)

Workstream members

Peter Hummel (Novartis)

Nelson Taruc (Lextech)

Roger Attrill (IQVIA)

Sudha Yerramilli (Merck)

Fernando Barneze Gonzalez (Novartis)

Julie Morrison (Instem)

Breac Baker (Instem)

Brian Mila (Lextech)

Kasia Konczak (GSK)

Aleksandra Zajdenc-Jurczyk (Roche)

John Wise (Pistoia Alliance)

Anne Stevens (Elsevier)

Jing Zhang (AstraZeneca)

Adriana Rys (Novartis)

Ahmet Bektes (Elsevier)

Join the journey

Pistoiaalliance.org/community/uxls

Community Facilitator: Farah Egby
farah.egby@pistoiaalliance.org

UXLS

User Experience for Life Sciences

COMMUNITY

PISTOIA ALLIANCE

Our members collaborate as equals on open projects that generate significant value for the worldwide life science community

PISTOIA ALLIANCE

UXLS Community Funders

Thanks to our funders who are making this possible, without their help this community would not exist or collaborate. Thanks for all the in-kind contributions for their time and expertise

MERCK

gsk

Roche

NOVARTIS

white space

LEXITECH