

The logo consists of a red square containing the white text 'Hi' in a stylized font.

Harvard
innovation labs

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APPLIED AI FOR HEALTH & LIFE SCIENCES VENTURES

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OBJECTIVE:

A USEFUL FRAMEWORK

Not a demo of tools

- 1 | What "AI" is and is not
- 2 | Sources
- 3 | Selection
- 4 | Application
- 5 | Examples
- 6 | Keep in mind

**“ARTIFICIAL INTELLIGENCE IS NEITHER
ARTIFICIAL NOR INTELLIGENT”**

MICROSOFT RESEARCH PRINCIPAL RESEARCHER KATE CRAWFORD

1 WHAT "AI" IS AND IS NOT

You can't control what you can't understand

- **Thought**

consciousness: what does it mean to "me"?

- **Behavior**

AI: fire → run/alarm/extinguish...

- **Wisdom**

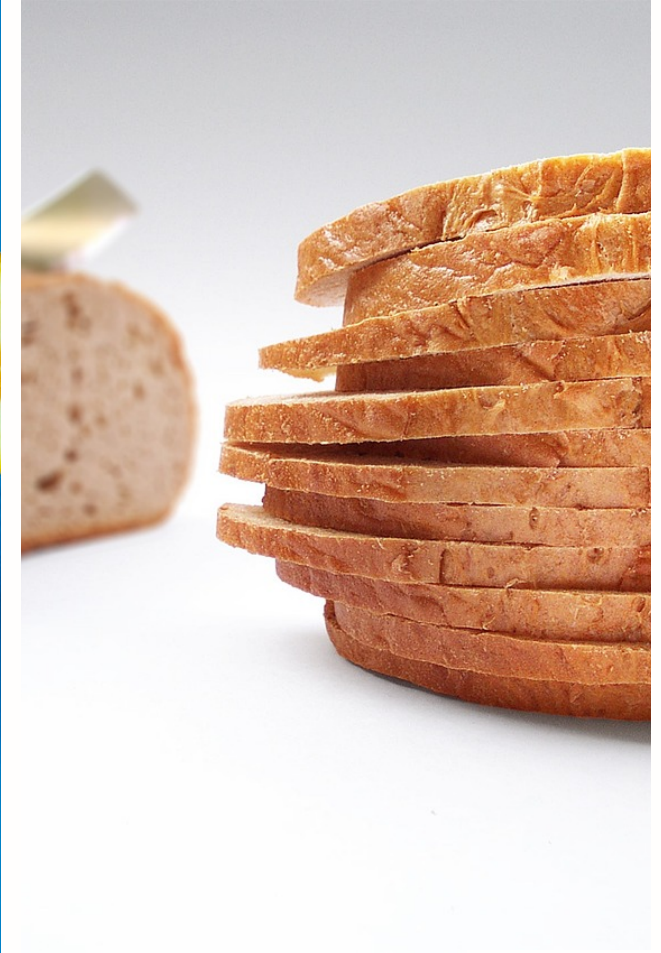
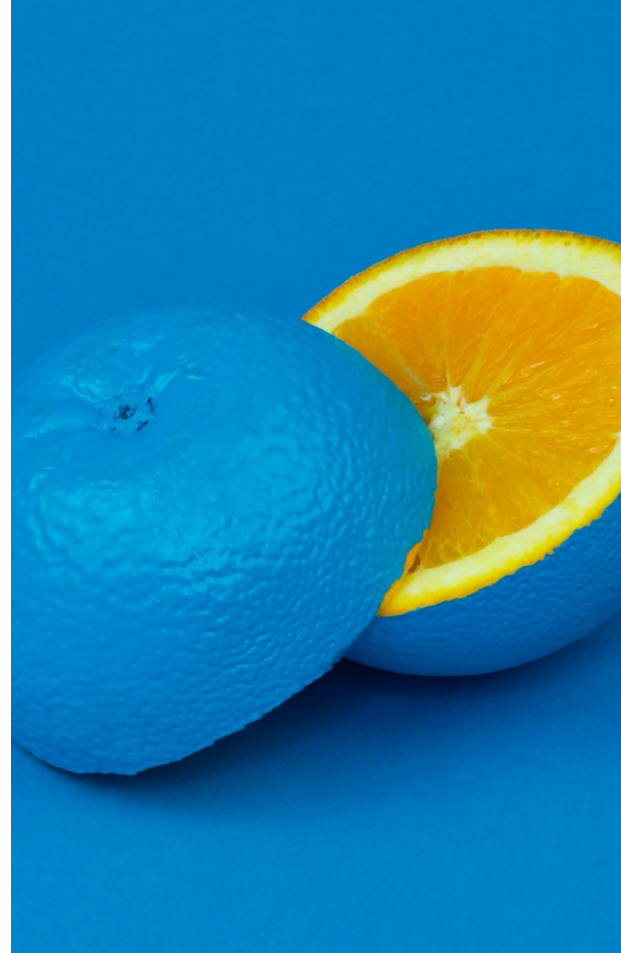
graph / ML: in case of fire...

- **Knowledge**

node / connection / big data: this room has a...

- **Information**

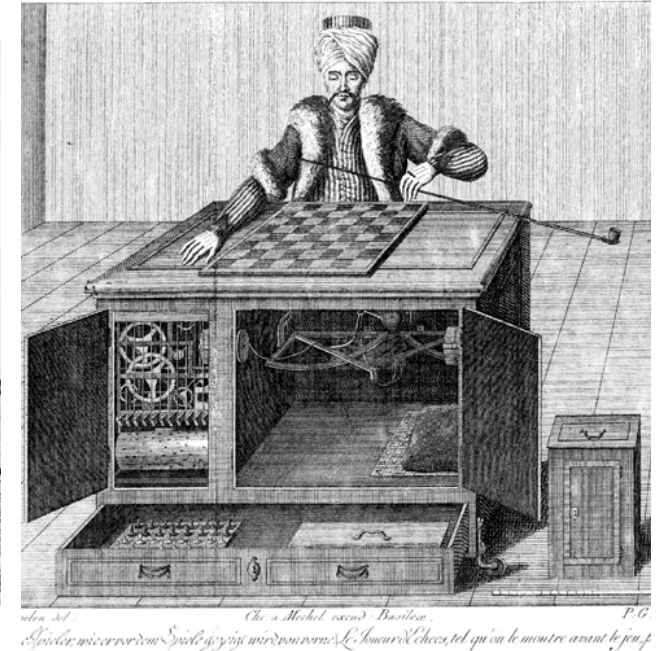
bit / digital / data: room, color, extinguisher...



1 WHAT "AI" IS AND IS NOT

Think of it as the new...

- **Internet**
beware of social media platforms
- **Smart phone**
there's an app for that
- **Printing press**
knowledge for all... or not?
- **Electricity**
should you become an electrician?
- **Steam power**
what can it power?



2 SOURCES



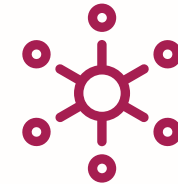
Collection of tools

<https://theresanaiforthat.com/>



Generators

<https://www.steamship.com/>



Models community

<https://huggingface.co/>

3 SELECTION

- Usefulness
- Cost
- License
- Accuracy
- Project

4 APPLICATION

Role-play and prompt engineering

- **CEO**
Strategy, Business plan, Team building, Company culture, Crisis
- **CMO**
Customer, Marketing agency, Social media, Influencer, Competition, Pricing
- **CFO**
Investor, Regulators, Spreadsheet analysis, Budget allocation, KPIs, Runway
- **CSO**
Regulation, Coding, Science, Experiments, Documentation

5 EXAMPLES

- OpenRegulatory Formwork: QMS
<https://openregulatory.com/formwork/>
- Legaliser: AI to review and create contracts
<https://www.legaliser.com/>
- BeautifulAI: Easy to use presentation tool
<https://www.beautiful.ai/>
- Low-code/No-code AI bot builder
<https://www.stack-ai.com/>
- Research paper Analysis
<https://elicit.com/> or <https://www.semanticscholar.org>
- Locofy: design to code in 1 click
<https://www.locofy.ai>
- Drug discovery
<https://www.hitchhikersai.org/>

6 KEEP IN MIND

- ERRORS ("hallucination" is manipulation)
- Ethics
- Dependency / Ownership
- Black-box effect

6 KEEP IN MIND

In regulated uses:

- Detailed info:
<https://harvard-ilab.notion.site/Regulatory-484a14c2000a4e9a95bb39c8f37a5812>
- Mandatory regulation to be covered with your own QMS: US FDA 21CFR820, EU MDR ISO13485, ISO14971, ISO14155, ISO18969, IEC62306, 62366, 82304 CyberSecurity, GDPR
- Or contract legal manufacturer



“USING THE TERM “AI” TO REFER TO A WHOLE COMPLEX OF INFRASTRUCTURES, HUMAN LABOR, RESOURCES, LEGISLATION, AND REGULATORY BODIES ELIDES THE MANY DECISIONS REQUIRED TO CREATE AND IMPLEMENT MACHINE LEARNING AT A LARGE SCALE. IN OTHER WORDS, IT HIDES THE POLITICAL PROCESS. THIS ALLOWS THOSE WITH THE RESOURCES TO DESIGN AND INVEST IN PRODUCTS SOLD AS AI—PRODUCTS FOR ACTIVITIES SUCH AS BORDER SURVEILLANCE, MORTGAGE APPROVAL, AND CRIMINAL SENTENCING—TO DEPICT THEIR PARTICULAR SOCIAL VISION AS THE DEFINITION OF HUMAN PROGRESS ITSELF. BECAUSE THESE PRODUCTS COLLECTIVELY FORM THE VERY INFRASTRUCTURE OF SO MUCH OF OUR CIVIC AND POLITICAL PARTICIPATION, DEMOCRACY IS BEING SHAPED AND CONSTRAINED BY **A WEALTHY MINORITY** THAT INCLUDES FIGURES SUCH AS **PETER THIEL** AND **ELON MUSK** WHO NURTURE TRULY DISTURBING FANTASIES OF THE GREATER GOOD. THIS PROCESS, WHICH CUMULATIVELY TRANSLATES THESE INTERESTS INTO THE VERY LANDSCAPE OF ADVANCED CAPITALIST LIFE, IS MUCH MORE SIGNIFICANT THAN THE ADVENT OF SOMETHING THAT ALLOWS US TO GENERATE INTRICATE AND POLISHED CAT VIDEOS.”

<https://www.thenation.com/article/society/open-ai-sora-chatgpt-artificial-intelligence/>

Q&A



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