Elements of AI **for Business**

Create a common understanding of AI in your organization and explore practical use cases.

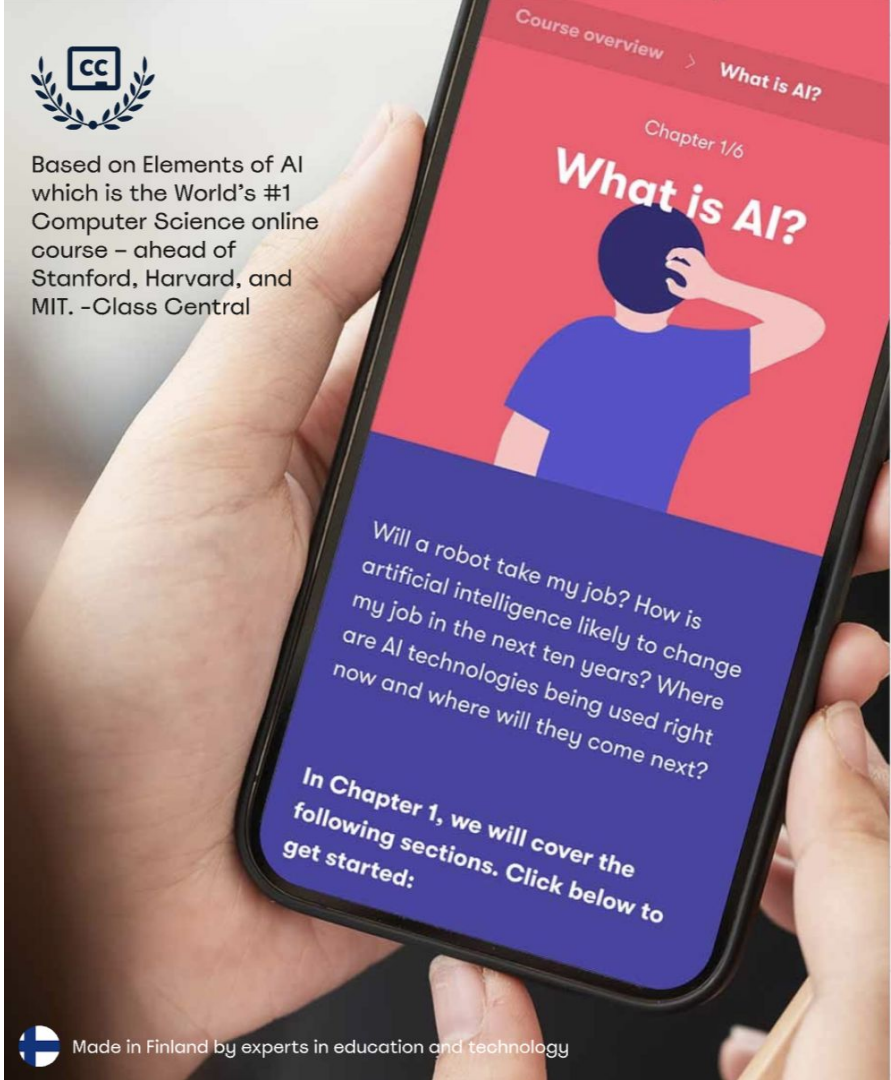
A four-week learning journey including:

1. Selected chapters and exercises from our *award winning Elements of AI course
2. Three 2½ hour workshops
3. Taking it to practice: identify challenges to solve with AI tools and conduct an experiment at work

4 week learning program

for groups of 6-10 participants

designed for knowledge workers & decision makers



4 week program

Kickoff
Forming group, discussing requirements, setting goals

Study period 1

Study time ca. 1h

Chapter 1 - What is AI?

Workshop 1/3
Discussing insights, group activity

Study period 2

Study time ca. 5h

Chapter 4 - Machine Learning

Chapter 5 - Neural Networks

Workshop 2/3
Identify challenges, solutions and define an experiment to test them.

Study period 3

Study time ca. 2h + experiment

Chapter 6 - Implications

Experiment at work

Workshop 3/3
Presenting experiment results

Estimated time

Independent study	~8h
Meetings	8.5h
Experiment at work	~4h

total: ~20h

Program Design

Learning Objectives Breakdown

✔	Understand key AI concepts and differentiate between practical AI and science fiction.
✔	Recognize the significance of machine learning techniques.
✔	Differentiate between unsupervised and supervised learning.
✔	Comprehend supervised classification methods, including nearest neighbor, linear regression, and logistic regression.
✔	Define neural networks and their successful applications.
✔	Grasp the underlying techniques of neural networks.
✔	Evaluate predictions and claims about AI's future.
✔	Understand AI's societal impacts: algorithmic bias, AI-generated content, privacy, and employment.
✔	Apply the fundamental knowledge of artificial intelligence in conversation with colleagues
✔	Analyze business perspectives through an AI lens.
✔	Prototype solutions using AI tools

Time usage breakdown

Program participant

Kick-off session	1h
Study period 1	1h
1st workshop	2,5 h
Study period 2	5 h
2nd workshop	2,5h
AI experiment	4h
Study period 3	2 h
3rd workshop	2,5 h
All together	**20,5 h**

Program attendance

The suggested number of participants for one program cohort is 6-10 people. Our program is designed for small group discussions and exercises that allow everyone's insights to shine and be heard.

- The whole program be can run remotely, live or hybrid.
- For collaboration we use Miro, which our templates are built in. It allows participants to join in without prior skill in the tool.

Kick-off

1 hour group meeting that builds shared expectations, engagement and excitement for the participant.

- Facilitator introduces the course
- Participants sign in to the self-study material
- Pre-surveys are filled
- held 1-3 weeks before the first workshop

After the kick-off:

Participants are ready and equipped to start the first self-study session.

Workshops

Workshops are 2,5 hour long sessions where the facilitator guides the group toward their goals.

Recommended workshop spacing

- The 1st and 2nd workshop are a week apart. There is 2 weeks between the 2nd and the 3rd workshop. This allows enough time for study and experimenting at work. The schedule can be adjusted to the needs of each cohort.
- The facilitator runs the workshops using Miro as a collaboration tool.
- Cohorts use their preferred choice of video conferencing (Google meet, Teams, Zoom, etc.)

After the workshops

Participants have a shared understanding of AI fundamentals and have tested use cases for their business

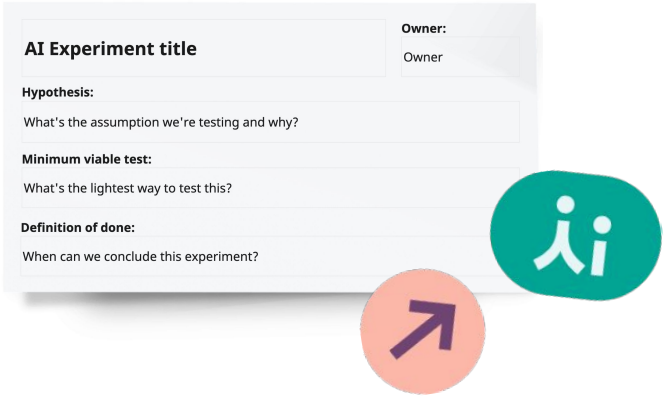
Experiment at work

AI experiment at work

In this exercise participants run their own AI experiments.

They start by identifying problems (either their own or customer's) and then ideate an AI solution.

Experimentation is done in the final study period after which participants share their results and learnings.



Identifying problem → Solution ideation → Experiment → Presenting results

Certificates

Certification requirements

Completing the study chapters, actively participating in the workshops and running the AI experiment.

Self-Study Material

Self-study material | **Online**

Participants study select chapters from our award winning Elements of AI course.

- Content is highly validated with over million students around the world
- Made together with Helsinki University.
- Material last updated in September 2023.

Elements of AI

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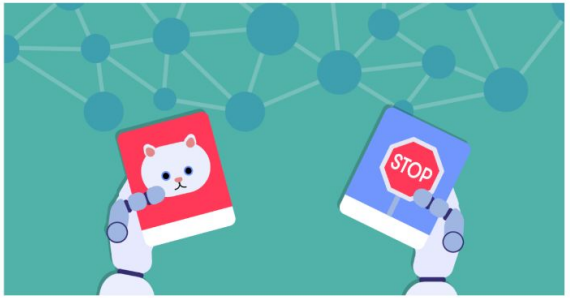


Fresh updates to Elements of AI!

AI is one of the fastest developing areas in research, business and real-life applications. More than ever before, there are considerations as to how much of our work can be assisted by AI today.

Albeit educating people on the rather constant basic theories and methods of AI, we certainly do not want to lag behind the current whirlwind of technological advances.

And that is why we have updated the Elements of AI course.

What's new:

- A comprehensive update of further resources
- We've included the latest news from the front of machine learning, neural networks, ethics, and societal implications of AI and more
- The Rise of Large Language Models
- We've added our take on the recent developments in advanced neural network techniques (aka the arrival of ChatGPT and others)

You can find most of the updates on the page Advanced neural network techniques. The update is available in English, Finnish, Swedish, Norwegian, Czech, and German. The updates will not have an impact on your progress in the course ☺.

Achievements

- Class Central: Best online courses of all time and **#1 online course in Computer Science**
- MIT Inclusive Innovation Challenge, ‘Skills Development & Opportunity matching / **Winner**
- Fast Company most innovative companies, Education / **Silver**
- German Design Award / **Winner**
- Grand One, Grand Prix best campaign / **Winner**
- Webby, Best visual design / **Honoree**
- SXSW Innovation Awards, ‘Connecting People‘ / **Finalist**
- Visuelt, ‘Digital design‘ / **Winner**
- Vuoden huiput, ‘Products‘ / **Winner**
- CogX, Innovation: Education / **Finalist**

Self-study material

What is AI?

Will a robot take my job? How is artificial intelligence likely to change my job in the next ten years? Where are AI technologies being used right now and where will they come next?

After completing Chapter 1 you should be able to:

✔	Explain autonomy and adaptivity as key concepts for explaining AI
✔	Distinguish between realistic and unrealistic AI (science fiction vs. real life)
✔	Express the basic philosophical problems related to AI including the implications of the Turing test and Chinese room thought experiment

Chapter 1

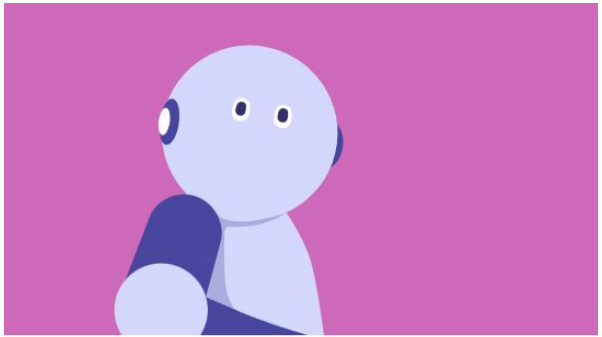
What is AI?

Section	Exercises
I. How should we define AI?	0/1
II. Related fields	0/2
III. Philosophy of AI	0/1

Self-study material

Machine Learning

It has been long understood that learning is a key element of intelligence. This holds both for natural intelligence - we all get smarter by learning - and artificial intelligence.



After completing Chapter 4 you should be able to:

✔	Explain why machine learning techniques are used
✔	Distinguish between unsupervised and supervised machine learning scenarios
✔	Explain the principles of three supervised classification methods: the nearest neighbor method, linear regression, and logistic regression

Chapter 4

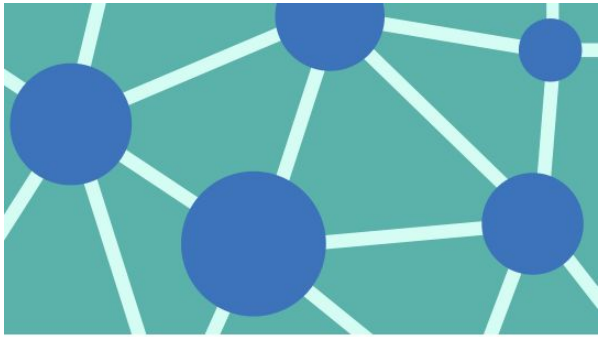
Machine learning

Section	Exercises
I. The types of machine learning	---
II. The nearest neighbor classifier	0/2
III. Regression	0/4

Self-study material

Neural Networks

Areas like natural language and image processing have traditionally been sore points of AI. Neural networks and deep learning are being used to achieve significant improvements in these areas.



Chapter 5

Neural networks

Section	Exercises
I. Neural network basics	0/1
II. How neural networks are built	0/2
III. Advanced neural network techniques	---

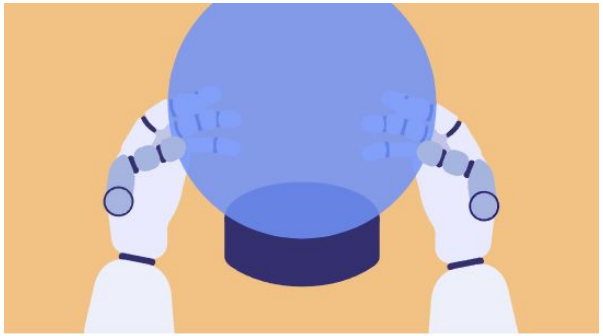
After completing Chapter 5 you should be able to:

✔	Explain what a neural network is and where they are being successfully used
✔	Understand the technical methods that underpin neural networks

Implications

"I believe that the more you know about the past, the better you are prepared for the future."

Theodore Roosevelt



After completing Chapter 6 you should be able to:

✔	Understand the difficulty in predicting the future and be able to better evaluate the claims made about AI
✔	Identify some of the major societal implications of AI including algorithmic bias, AI-generated content, privacy, and work

Chapter 6

Implications

Section	Exercises
I. About predicting the future	0/1
II. The societal implications of AI	0/1
III. Summary	0/1