

Elements of AI

Ilmi Salminen / Reaktor

Artificial intelligence and the next generation of competences :
How Digital – and Artificial Intelligence will impact jobs and competences profiles?

The World Conference on Intellectual Capital for Communities

UNESCO, 11 & 12 July 2019

We are on a mission to create a worldwide movement that helps people be empowered, not threatened by AI.



Intellectual Capital
for Communities
In the Knowledge
Economy

Our story

- <https://www.youtube.com/watch?v=1n4XtfzHuo8>
- In spring 2018, Reaktor and the University of Helsinki came together with the goal of democratizing artificial intelligence.
- Together, we built a free online course available to anyone anywhere at anytime to teach the basics of AI to people from a wide range of backgrounds.



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



Chapter 2

AI problem solving

Section	Exercises
I. Search and problem solving	0/2
II. Solving problems with AI	---
III. Search and games	0/1



Chapter 3

Real world AI

Section	Exercises
I. Odds and probability	0/2
II. The Bayes rule	0/2
III. Naive Bayes classification	0/2



Chapter 4

Machine learning

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



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	---



Chapter 6

Implications

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

Aits Lab @AitsLab · 1. heinäk.
A free online introduction course to #ArtificialIntelligence for the general public - in Swedish, Finnish or English: elementsofai.com. #aiutmaningen #aichallenge #elementsofai #popularscience #openscience @pintofscience @pintofscienceSE

AI Innovation of Sweden @AISweden
We want to educate more than 100,000 Swedes on AI. A simple retweet could help us all!
ai.se/en/news/educat...
#aiutmaningen #aichallenge #elementsofai

Käännä twiitti

1 6

@DATEV_EUPolitik @DATEV_EUPolitik · 1. heinäk.
Die digitale Mündigkeit der Bevölkerung ist der Schlüssel für eine zukunftsfähige Gesellschaft. Finnland macht mit dem online Kurs #ElementsofAI vor, wie dies zu erreichen ist. Ein lesenswerter Beitrag von @vkmocker.

Käännä twiitti




Digitale Mündigkeit – Warum Finnland für Deutschland ein Vorbild...
In Finnland arbeitet eine Allianz daran, dass die Bevölkerung Künstliche Intelligenz (KI) versteht und mitgestaltet. Denn digitale Mündigkeit ist...
handelsblatt.com

3 8

Tiemo von Hinkeldey · 3rd+
Enable people to get things done!
1d

Finished! This great introductory course to artificial intelligence #elementsofai #universityofhelsinki




20 · 2 Comments

Like Comment Share

Softronic · 4,001 followers
1d

Ni har väl inte missat att Softronic har antagit AI-utmaningen? Gör det ni med! Tillsammans utbildar vi Sverige! ...see more

See translation



26 · 1 Comment

Like Comment Share

Anna Ottenhall · 3rd+
Programme Manager, Industrial Technologies ...
5d

Vad är egentligen AI? Hur funkar det? Och varför behöver du och jag ha bättre koll på det? Vill du också få en bättre



#AIChallenge

250+ companies
in Finland have agreed
to educate their
personnel in AI

Elements of AI is now ranked as
#1 Computer Science online course in the world,
ahead of Stanford, Harvard, and MIT.
- Class Central May 2019

170k

registered students since
launch in May 2018

110

countries

37%

female

25%

over 45
years old

250+

firms pledge to
train their Staff
in Finland



Intellectual Capital
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Inside Finland's plan to become an artificial intelligence powerhouse

The small Nordic country is betting on education to give it a decisive edge in the age of AI

By **CHRIS BARANIUK**

15 Feb 2019



Credit: **WIRED**

Finland knows it doesn't have the resources to compete with China or the United States for artificial intelligence supremacy, so it's trying to outsmart them. "People are comparing this to electricity – it touches every single sector of human life," says



Finland's grand AI experiment

Inside Finland's plan to train its population in artificial intelligence.

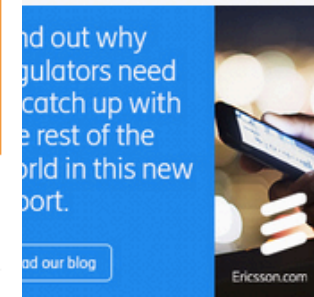
By **JANOSCH DELCKER** | 1/2/19, 3:53 PM CET | Updated 4/19/19, 1:23 AM CET

Roos, a computer scientist at the University of Helsinki, has spearheaded the school's AI initiative | Janosch Delcker/POLITICO



HINKI — Jaana Partanen is not your typical AI programming geek.

a year ago, the 59-year-old dentist from the Finnish town of Mikkeli had no idea what to make of s like "machine learning" or "neural networks."



Now, Partanen spends her evenings learning the basics of coding and she is thinking about how to apply artificial intelligence to her job, either to help write up medical summaries or perform orthodontics.

"I can see it [artificial intelligence] is already here, and it serves us — very much actually," she said, adding that following the latest developments in the field has become a hobby.

Our target is to
teach more than 1%
of the world's
population the
basics of AI by 2020.

