Course overview

Artificial Intelligence

Marcus Birkenkrahe

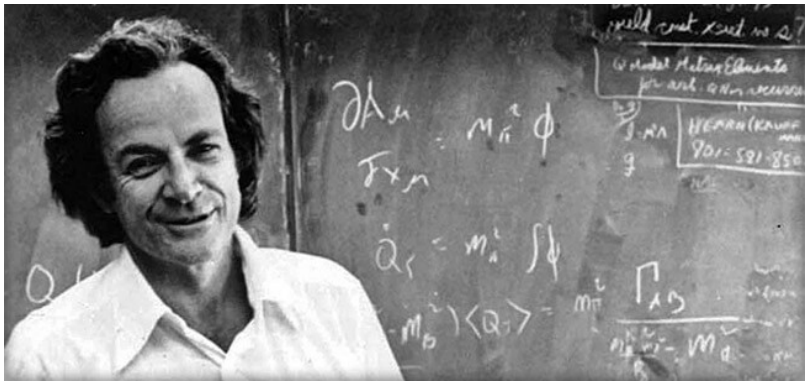
August 17, 2021

What're you going to learn today?

- Who is your lecturer?
- Who are you and what do you want?
- Which topics will we cover?
- How will we do it?
- What do you have to do to pass?
- What's next?

Who am I?

Science



- Development of WWW
- PhD theoretical particle physics
- 60 research publications
- Assoc. Ed. Int. J. of Data Science
- Ed. Board Int. J. of Big Data Mgmt.
- Scientific member d-cube@Berlin

Industry

- Executive at Accenture & Shell
- Coach and consultant
- Certified psychotherapist
- Startup mentor

Teaching

- Business informatics @HWR Berlin
- Visiting professor of data science @Lyon
- Adviser for CPU @LA
- Internship supervision

Pleasure

- Playing: Assassin's Creed Valhalla (2020)
- Reading: Waugh, Sword of Honour (1952-1961)
- Watching: The Middle (2009-2018)

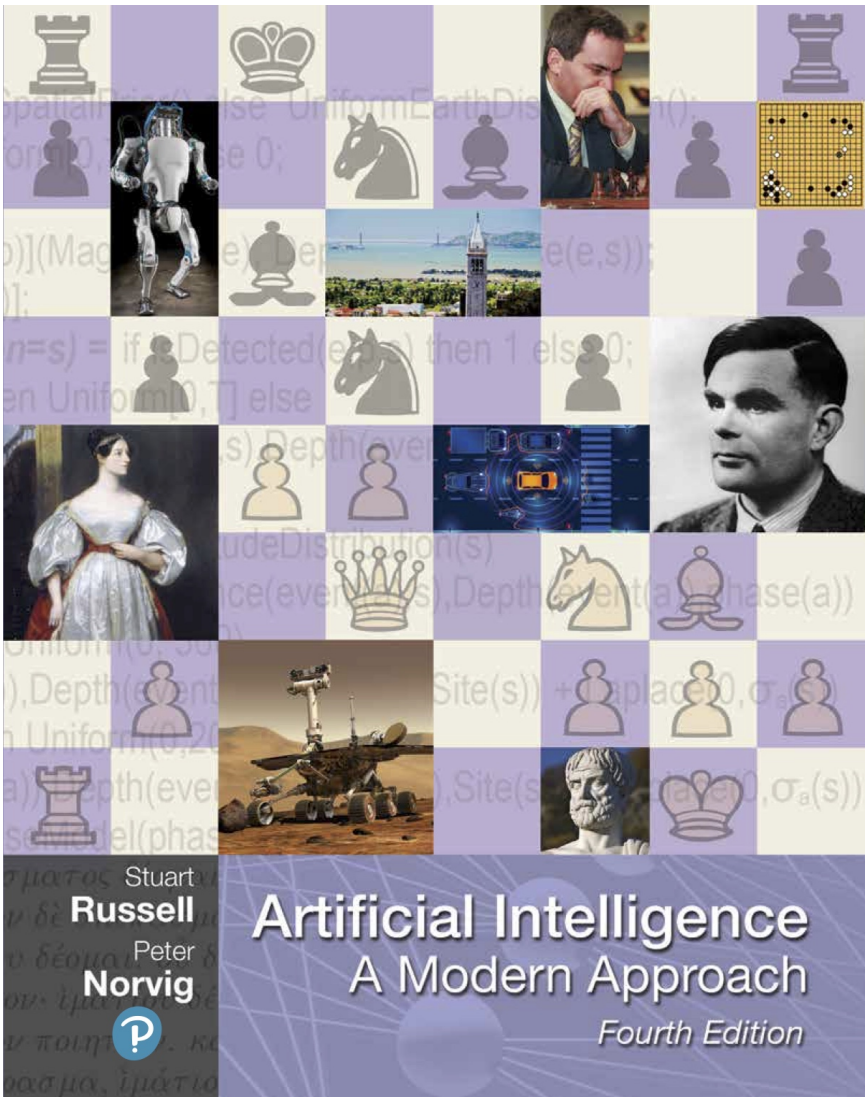
What are your expectations?

- What do you want to learn here?
- What would you like to avoid?
- What did you take away from another course?
- What did you really not like in another course?

Which topics will we cover?

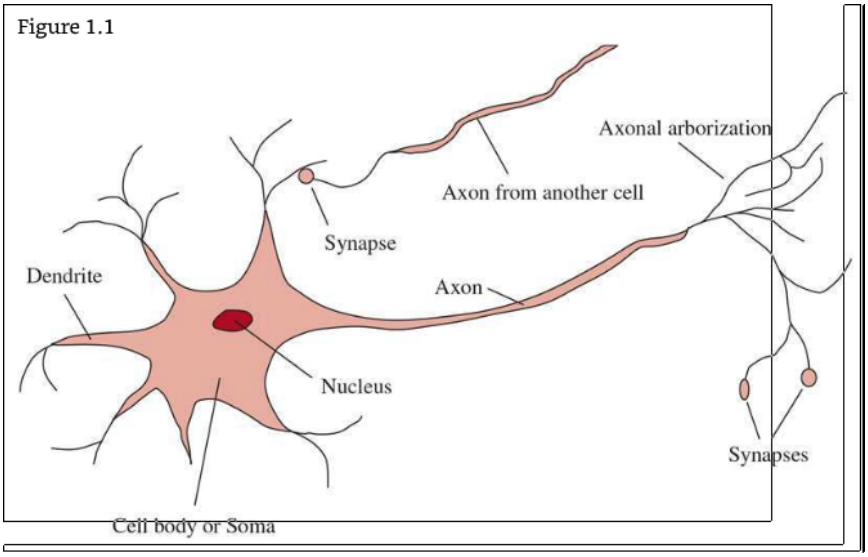
`./img/lavaflow.gif`

Modern approach to AI

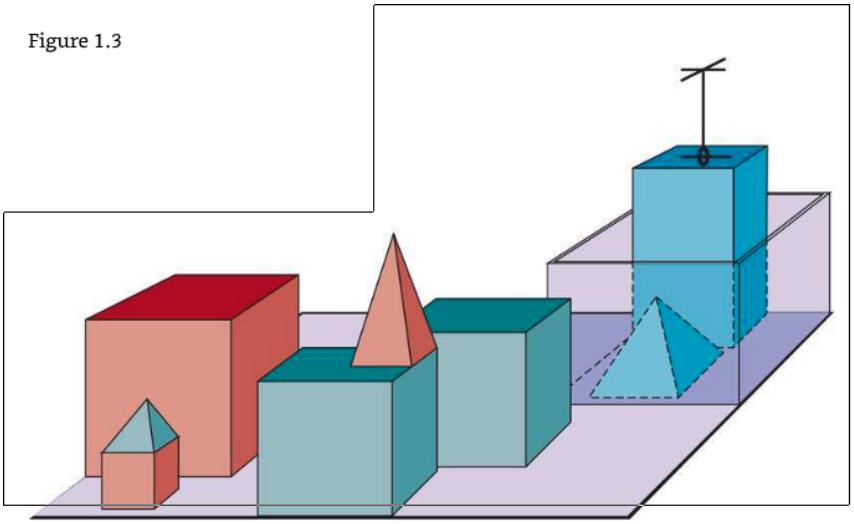


Source: AIMA, 10th ed. (2021)

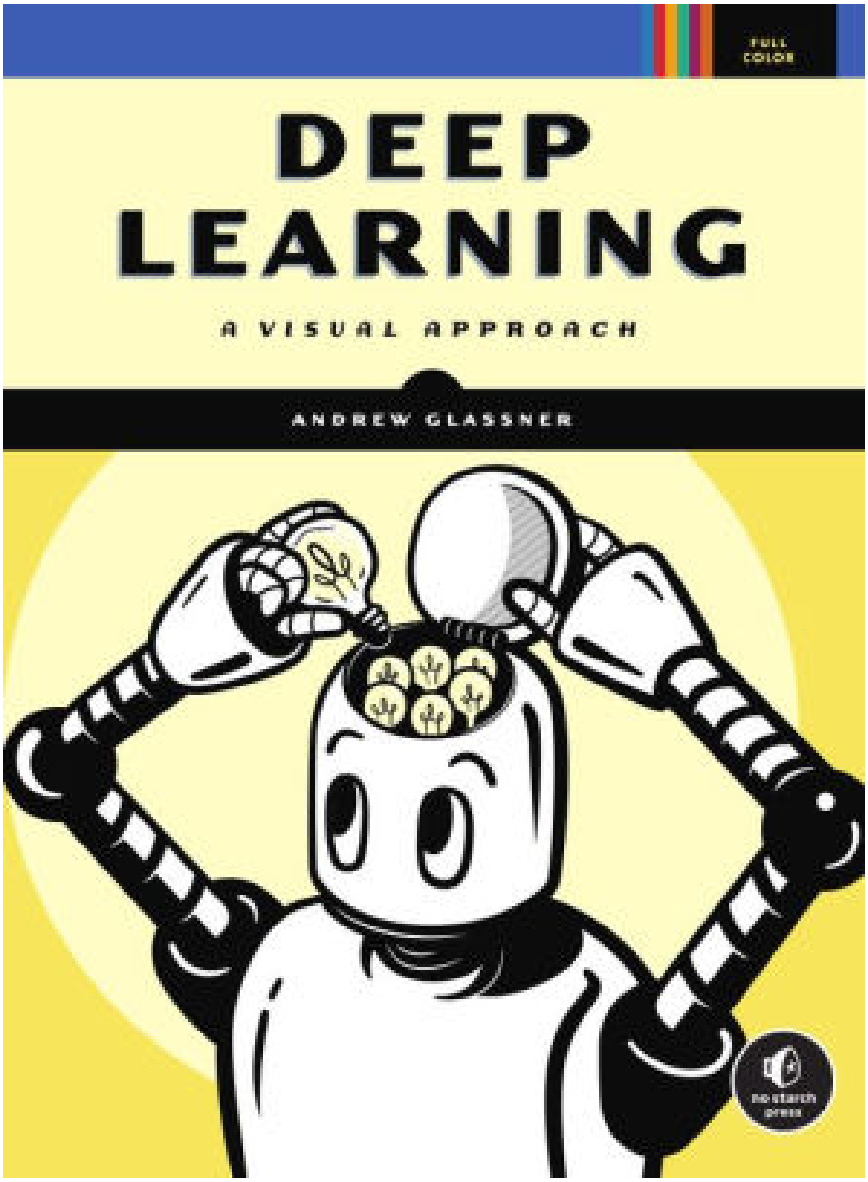
What is AI?



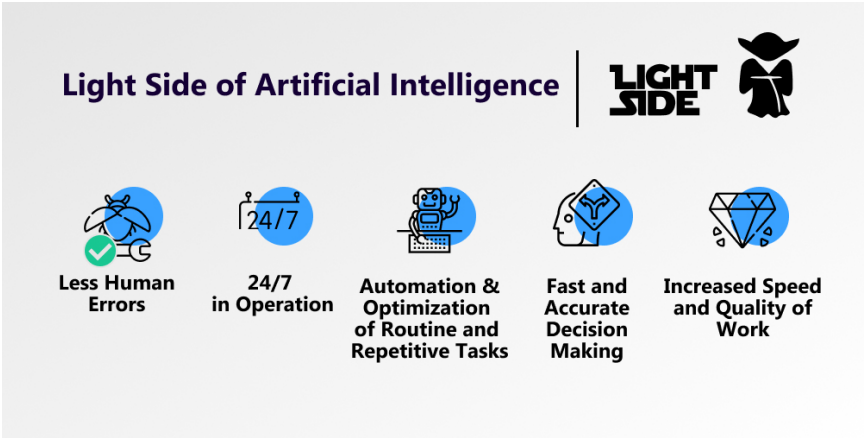
History of AI



State of the Art of AI



Risks and benefits of AI



Source: qulix.com (22 May 2020)

Agile management

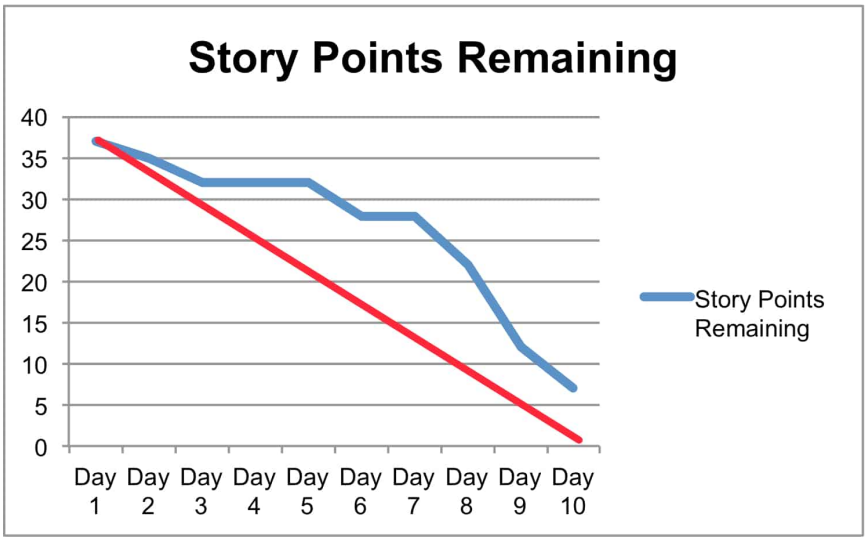


Image: Scrum burndown chart

Causation

JUDEA PEARL

WINNER OF THE TURING AWARD

AND DANA MACKENZIE

THE BOOK OF WHY

THE NEW SCIENCE OF CAUSE AND EFFECT

Schedule (see Syllabus)

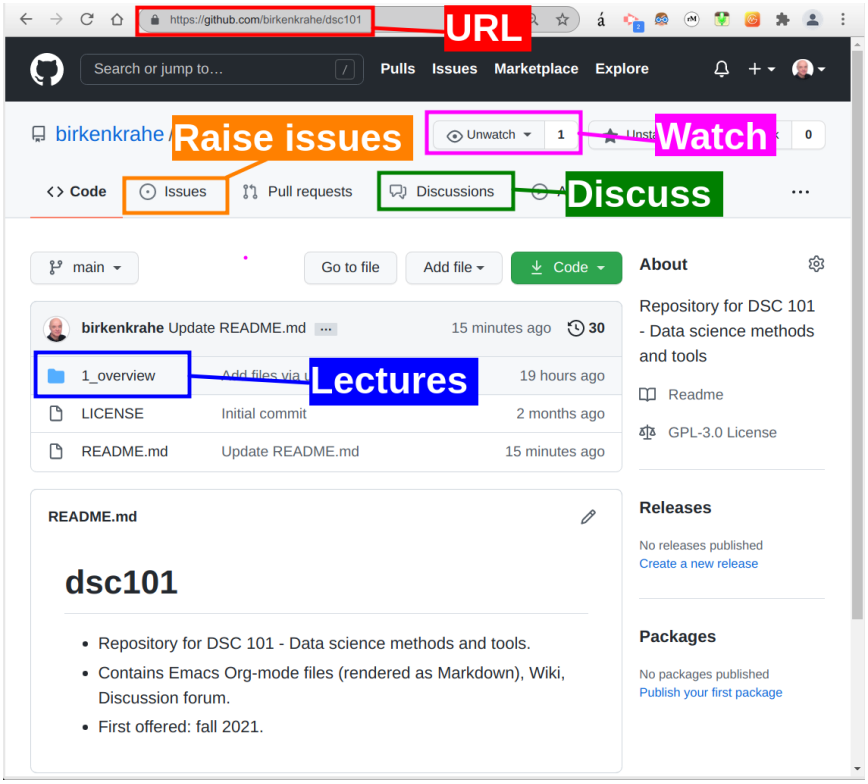
Image: Princeton U.

How will we do it?

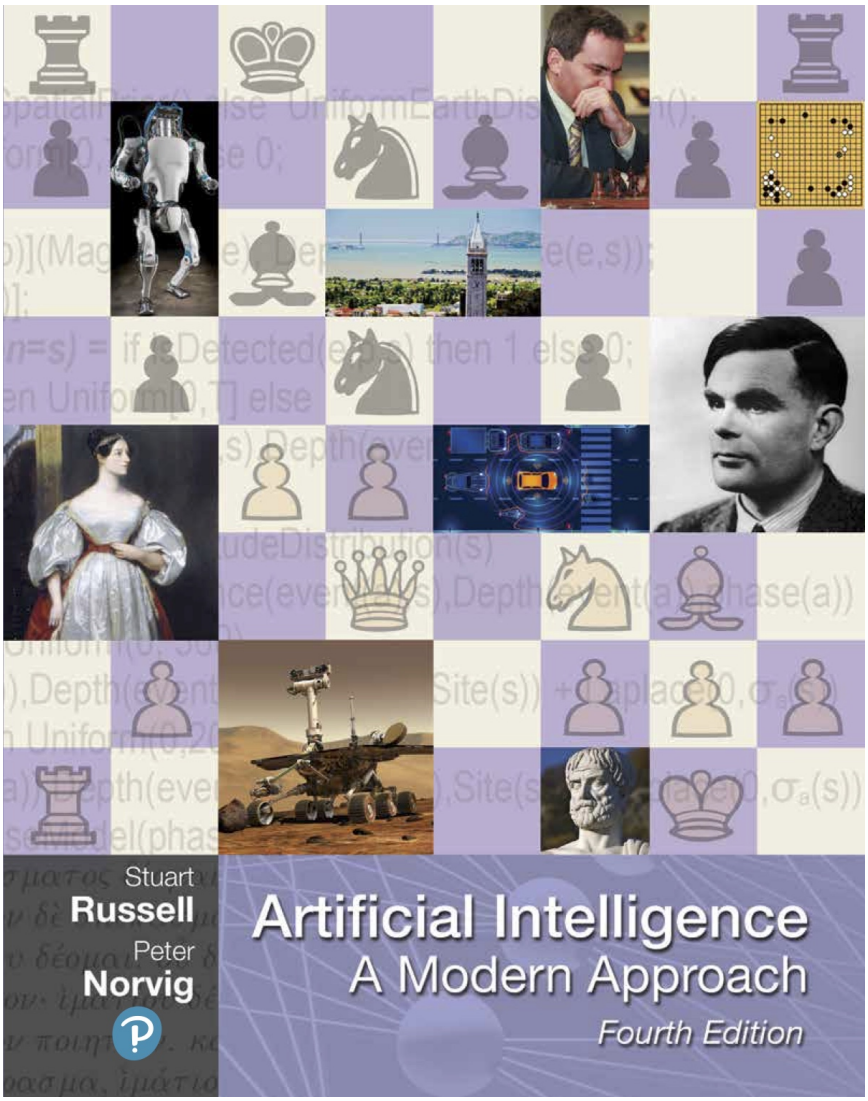
`./img/deer.gif`

Classroom sessions

Lecture scripts with exercises (GitHub)



Your presentations



Your protocols

- Image: Unsplash (@Ryan Arnst)

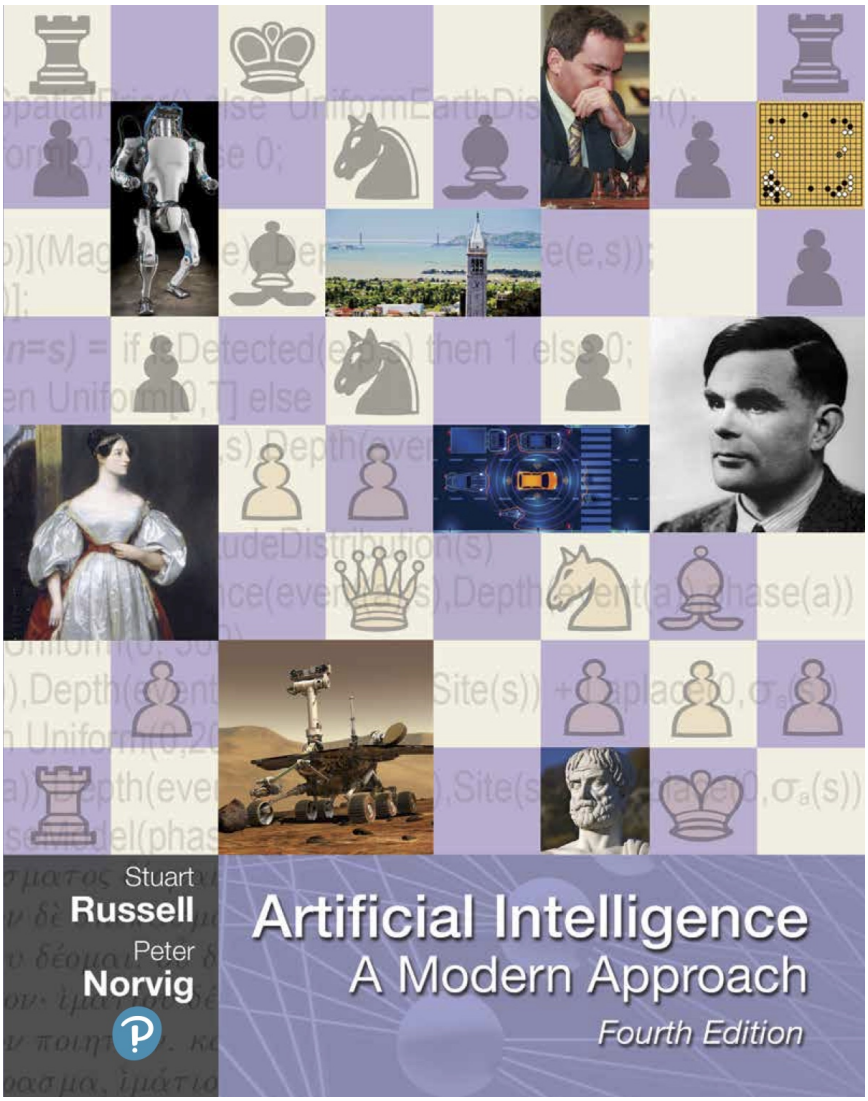
Stuff you bring to class

- Image: Unsplash (@Evan Demicoli)

TODO What do you have to do to pass?

`./img/oceanrock.gif`

AIMA presentation (> 50%)



Session protocol (> 50%)

- Image: Unsplash (@Ryan Arnst)

Weekly participation ($> 50\%$)

Final AI application (> 50%)

Source: Unsplash (@Minh Pham)

What constitutes an application?

- IMRaD structure (video)
- Problem to be solved
- Literature review
- Methodology
- Results / Idea / Business model
- Discussion with limitations
- References

Do you have examples for applications?

- Chapters in AIMA
- (Parts of) Research papers
- Scientific or industry blogs

Can I design an application?

- Keep It Simply Scientific (IMRaD)
- Read and take notes (see FAQ)
- Researchers are beginners
- Designers are creators

What's next?

`./img/river.gif`

In the course

- Lecture "What is AI?"
- Lab discussion and questions
- Come up with application ideas
- Schedule protocol and presentation

Your challenges

What?	When?
Get AIMA	ASAP
Schedule protocol/presentation	Aug 30
1st sprint review	Sep 10
Check FAQs x 2 in GitHub	n.d.

n | Ask questions (class/GitHub) | n.d. |
**) do this every week until December*

Any questions?

`./img/robot.gif`

This presentation is available online.