

II.C.8.8

Landeskunde – Science, Technology and Environment

ChatGPT: Artificial intelligence for everybody – Eine Auseinandersetzung mit dem Thema „KI“ (ab Klasse 10)

Waltraut Feger



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Künstliche Intelligenz – eine revolutionäre Entwicklung ähnlich der industriellen Revolution? Im schulischen Kontext verfassen Chatbots inzwischen vielfältige Textsorten und das in mehreren Sprachen. Viele Lehrkräfte sind infolgedessen besorgt, dass die Schülerinnen und Schüler das Lernen verlernen. In Australien hingegen sollen Chatbots ab 2024 in Schulen zugelassen sein. Die Wirtschaft warnt vor dem Wegfall von Millionen Arbeitsplätzen. In dieser Unterrichtsreihe erarbeiten und diskutieren Ihre Lernenden die positiven und negativen Aspekte von KI.

KOMPETENZPROFIL



Klassenstufe/Lernjahr:	10–13 (G9); 6.–9. Lernjahr
Dauer:	6–8 Unterrichtsstunden + LEK
Themen:	<i>problems of society, development of science, human-like robots</i>
Kompetenzen:	1. Leseverstehen: Texte verstehen; 2. Hör-Seh-Verstehen: Videos und Bildmaterial verstehen und analysieren; 3. Schreibkompetenz: Aufgaben zu Texten und Bildern bearbeiten; kreative Texte erstellen; 4. Sprechkompetenz: kritisch analysieren und diskutieren

Auf einen Blick

1. Stunde

Thema: Introduction to the topic AI

M 1 **Various forms of AI – Working with pictures** / Vorkenntnisse mithilfe von Bildern aktivieren und eine Erwartungshaltung aufbauen (PA, PL)

Benötigt:

- OH-Projektor bzw. Beamer/Whiteboard
- Folienkopie bzw. digitale Fassung von M 1

2. Stunde

Thema: Facts about *ChatGPT*

M 2 **What is *ChatGPT*? – Explained really simply** / anhand eines Videos das Thema erarbeiten und ausgewählte Aspekte sowie dessen Rezeption kommentieren (EA)

Benötigt:

- Internetzugang, Smartphone

3. Stunde

Thema: A human-like AI chatbot

M 3 **ChatGPT: *Why the human-like AI chatbot suddenly has everyone talking – Versatility of ChatGPT*** / Kenntnisse festigen und die im Text erkennbaren neuen Eigenschaften von *ChatGPT* identifizieren und kommentieren (EA, PA)

Benötigt:

- Internetzugang, Smartphone

4. Stunde

Thema: *ChatGPT* and education

M 4 **Exam body lets pupils use AI chatbot – Is this the future?** / authentische Nachrichten des britischen Fernsehens inhaltlich erarbeiten (EA, PA)

Benötigt:

- Internetzugang, Smartphone



5. Stunde

Thema: Pros and cons concerning *ChatGPT* in education

M 5 *ChatGPT and Education: The Benefits & Dangers Explained* / einen Text über Vor- und Nachteile des Chatbots in der Bildung erarbeiten (EA, PA)

Benötigt:

- Internetzugang, Smartphone



6. Stunde

Thema: Hearing at the U.S. senate: Artificial Intelligence is a threat to the world

M 6 *A threat to the world? – OpenAI head tells Congress* / den Stand der Forschung und Einschätzung zukünftiger Auswirkungen der KI erschließen (EA, PL)

Benötigt:

- Internetzugang, Smartphone



7. Stunde

Thema: Australia opens its schools to *ChatGPT*

M 7 *AI in schools? – Here is Australia's answer* / einen Einblick in den aktuellen Stand des Umgangs mit *ChatGPT* in Australien erarbeiten (EA, PA)

Homework: *Study the following comment on an article on ChatGPT's use as a source of plagiarism. Against the background of the Guardian's article, try to contradict the following comment, "I am an educator ..."*

Benötigt:

- Internetzugang, Smartphone



Lernerfolgskontrolle

LEK Class test – Understanding and analysing an article

Hinweise zum Online-Archiv bzw. zur ZIP-Datei

Alle Materialien des Beitrags finden Sie im Online-Archiv als Word-Dokumente. So können Sie die Materialien am Computer gezielt bearbeiten und sie auf Ihre Lerngruppe abstimmen.



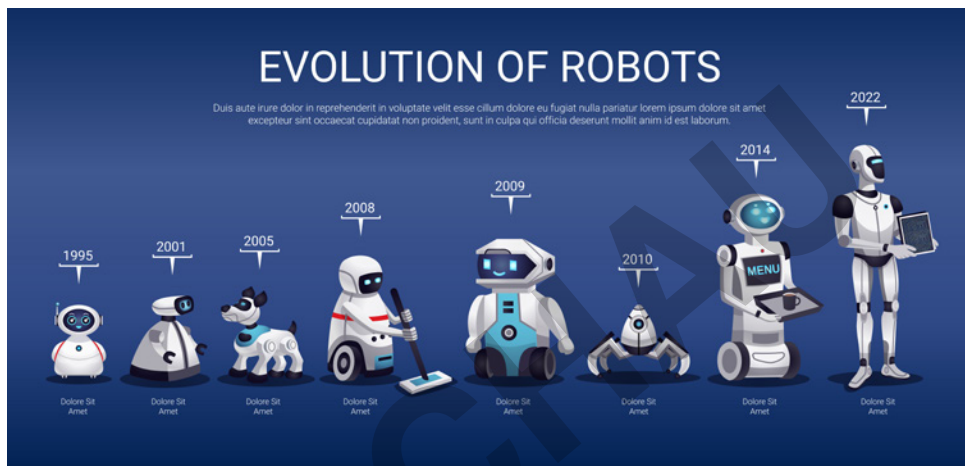
M 1 Various forms of AI – Working with pictures

AI is already part of our lives. Activate your knowledge and learn more about it.



Tasks

1. Work with a partner:
 - a) Describe the pictures.
 - b) Find out which ones show the same item twice.
 - c) Choose one picture, go online and find out about interesting details.
 - d) Prepare a short statement about your findings.
2. Extra task: Choose one robot, go online and find out more about it. Prepare a short statement.



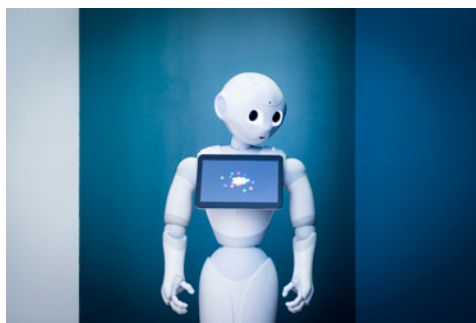
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What is *ChatGPT*? – Explained really simply

M 2

This video will help you understand what *ChatGPT* can do.

Tasks

1. Watch the video Explained really simply in 2 minutes:

<https://raabe.click/English-ChatGPT> (01:50 min.)



Vocabulary – Video

ChatGPT: humanoid robot with whom one can have a “chat” – **machine learning:** a field devoted to understanding and building methods that make machines “learn” – **(to) struggle with:** (to) try hard to achieve – **curious:** (to) want to know about sth. – **(to) generate:** (to) produce, (to) create – **witty:** funny – **(to) provide:** (to) give, (to) produce – **(to) solve:** (to) find a solution – **versatile:** having many applications

2. Answer the questions a)–h).

a) Why is *ChatGPT* of interest to a lot of people?

b) What different tasks can it be used for?

c) What kind of questions can it answer?

d) What kind of written products can *ChatGPT* help you with?

e) What else can it help you with?

f) Can it see the funny side of things?

g) Can *ChatGPT* assist you like another human being?

h) What message do we get at the end of the video?

3. Watch the video a second time without subtitles and complete the sentences a)–i).

a) What is *ChatGPT*, we hear you ask, and ...

b) *ChatGPT* is an AI computer programmer ...



- 8) The AI hearing made clear to the committee that ...
- AI must not be allowed to replicate themselves.
 - governments were to mitigate the threat of AI.
 - some industries were at risk because of AI.



2. Read the text and then open the link to *LearningApps*. Do the matching exercise to demonstrate your text comprehension:

<https://learningapps.org/watch?v=p7ckmxmp524>

3. Read the text again and answer the questions a)–i).

a) Who is Sam Altman?

b) What was the reason for the hearing at the U.S. senate on 16 May 2023?

c) Why does Altman compare AI to nuclear research?

d) What is the inherit danger of AI according to Altman?

e) What does Altman mean by “printing press moment”?

f) What sections of human life are – at the moment – most at risk by AIs and *ChatGPT*?

g) What does Altman demand to improve the present situation?

h) Altman uses some images, among them, “exfiltrate into the wild” and “to have the teeth”. Explain one of them.

i) What is Professor Gary Marcus’ point of view concerning AI?

4. Highlight the warnings against *ChatGPT* and AI in the text either mentioned by Altman or someone else. List and interpret them.

5. Imagine writing a short text for the English page in your school magazine, in which you tell your fellow students about that hearing and its essentials. Against the background of the newspaper article and what you have learnt in class, explain *ChatGPT* and AI.

6. Senator Richard Blumenthal, who delivered an opening statement at the hearing on AI and *ChatGPT* in the senate, later meets his neighbour Roger, who wants to know everything about the hearing. Against the background of our text, imagine what he might tell him.



AI in schools? – Here is Australia’s answer

M 7

Read the text and develop an opinion on the main message.



Artificial intelligence including ChatGPT will be allowed in all Australian schools from 2024 after education ministers formally¹ backed a national framework guiding² the use of the new technology.

The framework, revised³ by the national AI taskforce⁴, was unanimously⁵ adopted
5 at an education ministers meeting on Thursday. It will be released⁶ in the coming weeks.

On Monday the federal education minister, Jason Clare⁷, told the Today show⁸ that ChatGPT was “not going away” and had become similar to the “calculator or the internet”.

10 “We’ve got to learn how to use it,” he said. “Private schools are using it now. Kids are using it right across the country. They’re using it to do their homework [...].

Since the AI program ChatGPT was released late last year, Australia’s education sector has grappled⁹ with how to respond to the technology, from embracing¹⁰ it as a learning tool to blanket bans¹¹ and returning to pen-and-paper exams. Every
15 state and territory excluding South Australia moved to temporarily¹² restrict ChatGPT in public schools as concerns mounted¹³ about privacy and plagiarism.

But in a communique released on Friday morning, ministers confirmed that state and territories and non-government schooling sectors would work with their own education systems to implement¹⁴ the framework from term 1 next year. [...]

20 “This is a version of the internet that sort of smashes it all together and does the homework for you,” he said. “And if we don’t get it right and it’s misused¹⁵, then that’s not good.

“But if some students have got it and others don’t, then that’s not fair as well. So, there’s a lot of work to do.”

25 A global report released by Unesco¹⁶ this year called for urgent governance¹⁷ and regulation of technology in education lest¹⁸ it replace in-person, teacher-led¹⁹ instruction. It warned countries needed to set their own terms for how technology was designed and used in education amid²⁰ rapid developments in artificial intelligence.

30 Manos Antoninis, the director of the report, said the sector needed to “teach children to live both with and without technology”. “To take what they need from the abundance²¹ of information, but to ignore what is not necessary; to let technology support, but never supplant²² human interactions in teaching and learning,” he said.

35 Speaking at an inquiry²³ into the use of generative artificial intelligence last month, a Department of Education spokesperson, Julie Birmingham, said while the technology was developing quickly, Australia had been “leading the way” in its response.

40 Early research showed AI could provide intelligent tutoring²⁴ systems, better personalisation, more targeted²⁵ learning materials and help educate at-risk students, she said.

“Australia [has] actually [been] showcased²⁶ because we are one of the countries leading the way in terms of thinking about frameworks,” she said. “Other countries are very interested in what we’re doing.