



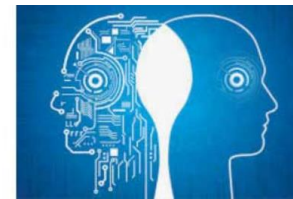
Künstliche Intelligenz im Unterrichtseinsatz

Best Practice Examples
Pädagogische Hochschule Feldkirch
hubert@egger.ac



Informatik-Grundkompetenzen

PH-LVA 841IT02006 BG+BRG Feldkirch, PH-Vbg



Artificial Intelligence & Neuronal Networks



Organisation & Zeitplan

14:00 Überblick & Info:

- Basics
- Alan Turing
- AI/KI aktueller Stand
- Konzeption KI-Software
- Tensor Flow Google
- Science & Ex Machina

15:30 Anwendungen und UE zum KI-Einsatz 2019:

- 10 Übungsbeispiele für den Schulalltag

17:30 Ende.

Unterlagen: ILIAS.vobs.at und <http://KI.eLearningCluster.at>

I myself - BIO

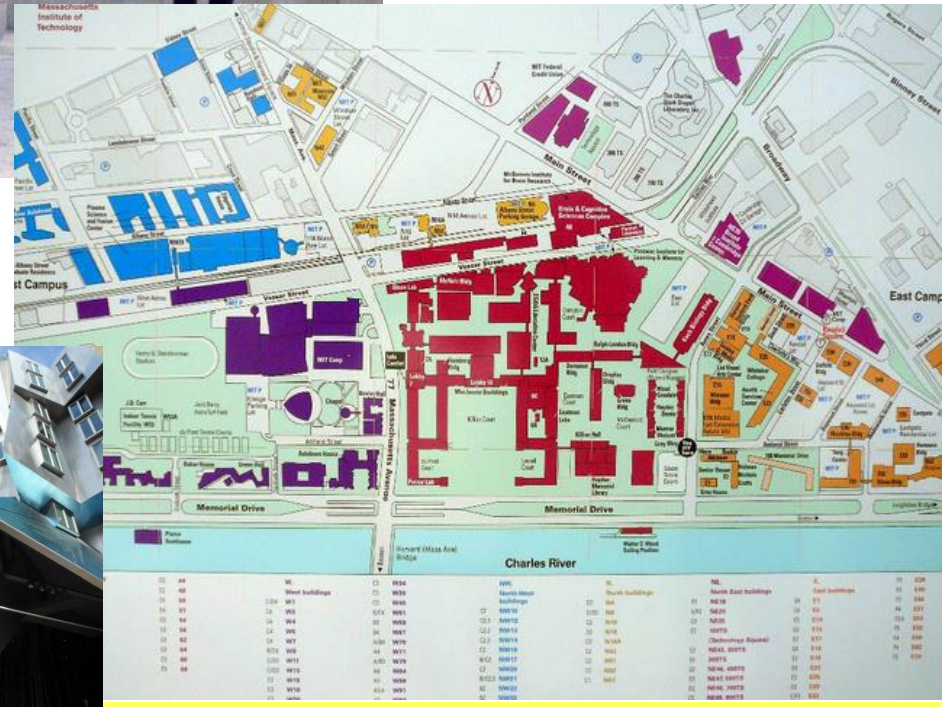
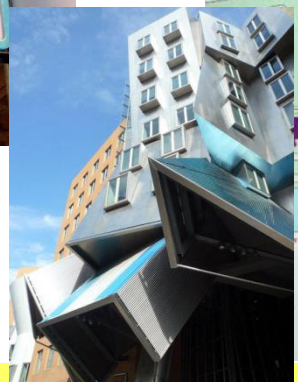


Hobbies ...





MIT / Boston3 Nano-Lab & MM-Lab



© Boston / MIT, bilder.egger.ac 08.2007

Hubert Egger

- Teacher Trainer (TT)
- eLearning-Cluster-Vorarlberg + eLC bmukk Austria
- university degrees in Mathematics, Physics and ICT from University Innsbruck /Austria
- Consultant Ministry of Education Austria/EU
- Attendee & designer of many Austrian & EU-projects (EPICT, eLC, eLSA, Intel, eFit, Learnie-Award, UTeacher, ICT Career&Space...)
- tries to foster Science & ICT in education
- curricula development in ICT for schools
- roll out and provision of services in Learning-Content-Management-Systems (LCMS), serious game based learning (GBL) ...



2005
Microsoft / Avatar /
Seattle / Redmond

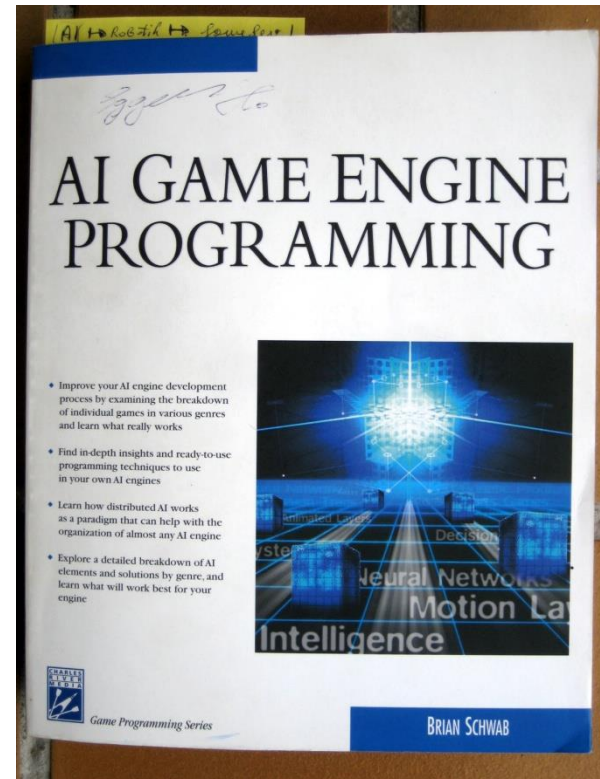


© hubert.egger.ac & album.egger.ac Seattle / Boeing / Microsoft 08.2005 ff

Warum wirken heutige Spiele realer?

**Spezielle Rolle der KI/AI :
(Künstliche Intelligenz,
Artificial Intelligence)**

Net-Games (CeBit)

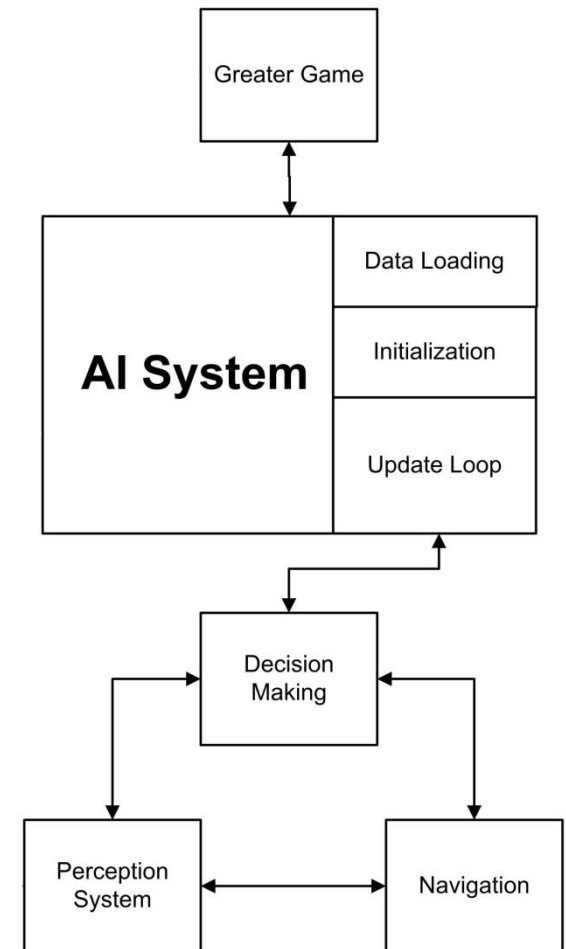


(Brian Schwab, San Diego, CA, C++, Objektorientiert, AI-Techniken, 2004, ...)

GBL mit AI-Integration

Grundkomponenten einer AI-Engine

- ✓ Entscheidungsfindung und Schlussfolgerungen
(decision making, inference)
- ✓ Eingabesteuerung und Wahrnehmung
(input handlers, perception)
- ✓ Navigation (Orientierung und Lenkung)
- ✓ Zusammenwirken/Summe.



Siehe: B.Schwab, AI-Game-Engine-Programming

GBL mit AI-Integration

Basic AI-Engine Techniques

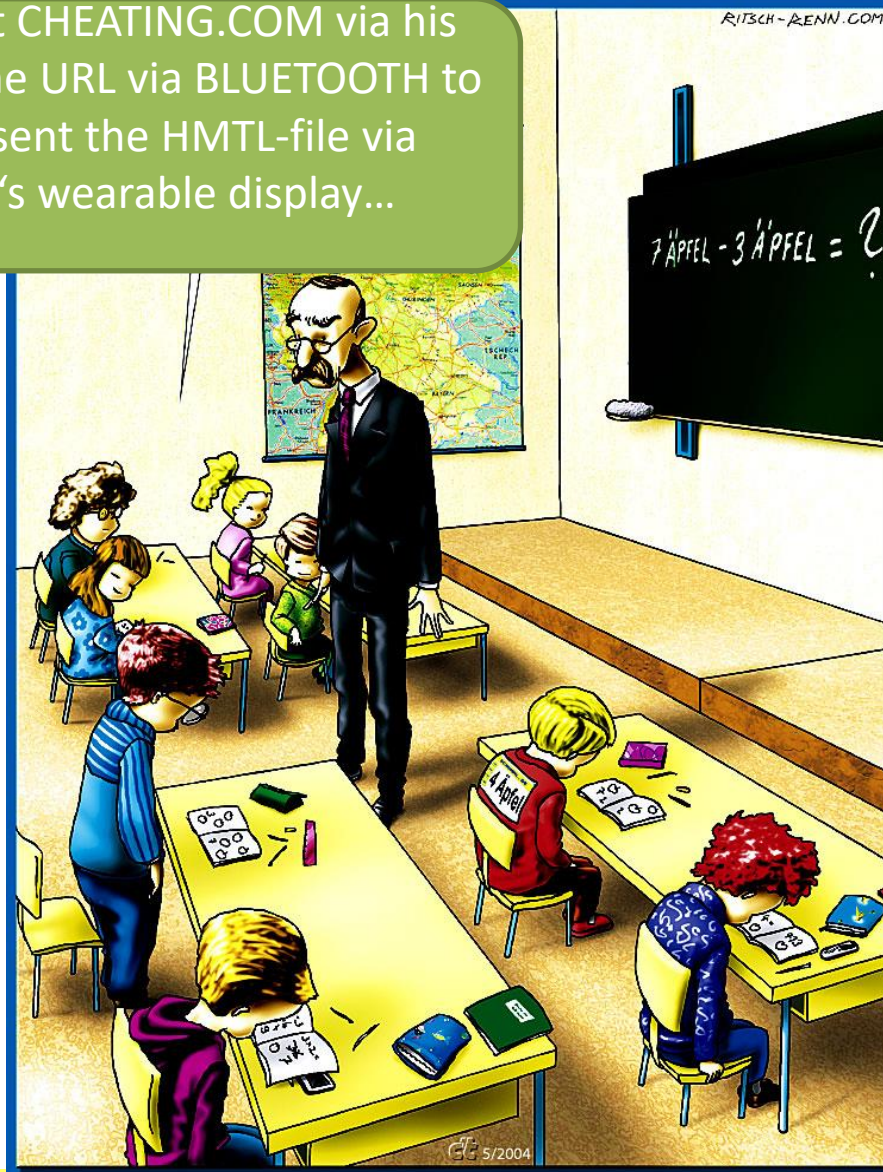
- FSM (finite state machine, endliche Automaten)
- FuSMs(Fuzzy-State Machines, fuzzy-logic boolean-logic)
- MBS (message based systems, statt Überprüfung von Zuständen – Botschaften bei Ereignissen eingesetzt)
- Scripting Systems (Programmiertechnik...)
- Location-Based Information Systems
(LBI besteht aus influence maps, smart terrain, terrain analysis/
Einflusskarten, geschicktes Gelände, Geländeauswertung)

GBL mit AI-Integration

Advanced AI-Engine Techniques

- Genetic Algorithms
(angelehnt an Genetik in Natur mit Reproduktion, Kreuzung, Survival of the fittest)
- Neural Networks (Organisation und Funktion des Gehirns nachgebildet, gewichtete lernfähige Neuronale Netze)
- Weiters: planende Algorithmen, Entscheidungsbäume,...

Jade has logged in at CHEATING.COM via his UMTS-cellular, sent the URL via BLUETOOTH to Sarah's PDA, who sent the HTML-file via WIRELESS to Jack's wearable display...



Source:
www.heise.de

Online games: World Championship 2010

CeBIT 2010+2011
Hannover / Germany



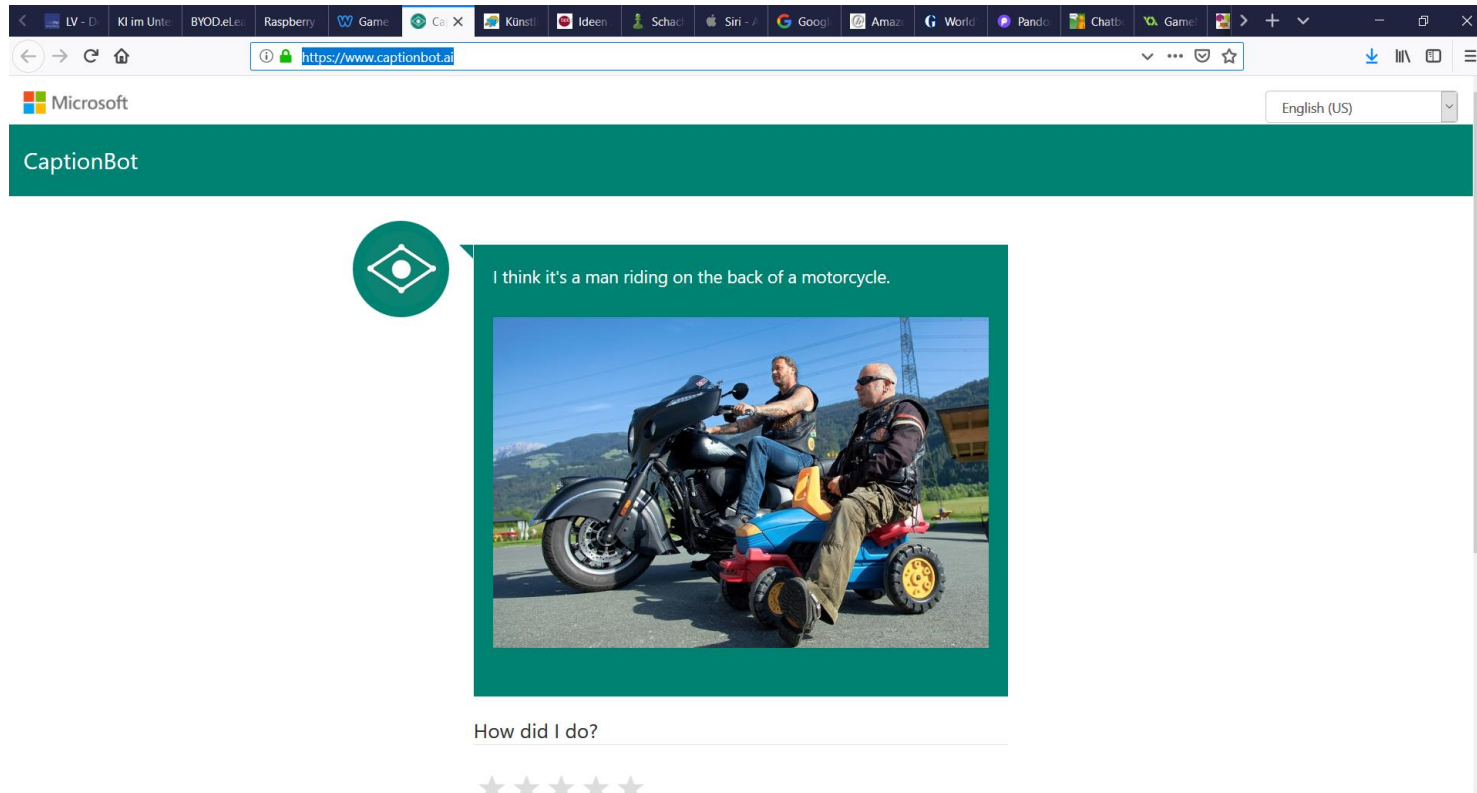
Source: Egger H., www.cebit.de

- Ludwig Adventures



Source: <http://www.playludwig.com/>

<https://www.captionbot.ai/>



The screenshot shows a web browser window with the URL <https://www.captionbot.ai/>. The page features a green header with the "CaptionBot" logo. Below the header is a circular icon with a camera lens symbol. The main content area displays a photograph of two men on a motorcycle. The man in the driver's seat is wearing a black vest and blue jeans, while the man in the passenger seat is wearing a black vest and khaki pants. The motorcycle is blue and red. The background shows a clear blue sky and a mountain range. Above the photograph, the AI-generated caption reads: "I think it's a man riding on the back of a motorcycle." Below the photograph, there is a text input field containing the question "How did I do?" and a row of five empty star icons for rating.

<https://www.chess.com/de/play/computer>

Chess.com

- Spielen
- Lernen
- Verbinden
- Beobachten
- Mehr
- Einloggen
- Registrieren Sie sich

Suche

Hilfe

Fordere den Computer heraus ✕

Versuche einen der besten Schachcomputer zu besiegen. Du kannst den Schwierigkeitsgrad von 1 (leicht) bis 10 (Großmeister) einstellen. Wenn Du nicht weiterkommst, dann hol Dir einfach einen Tipp oder nimm Deinen letzten Zug zurück. Sobald Du Dich bereit fühlst, um gegen menschliche Gegner zu spielen, kannst Du Dir ein kostenloses Chess.com Konto anlegen!

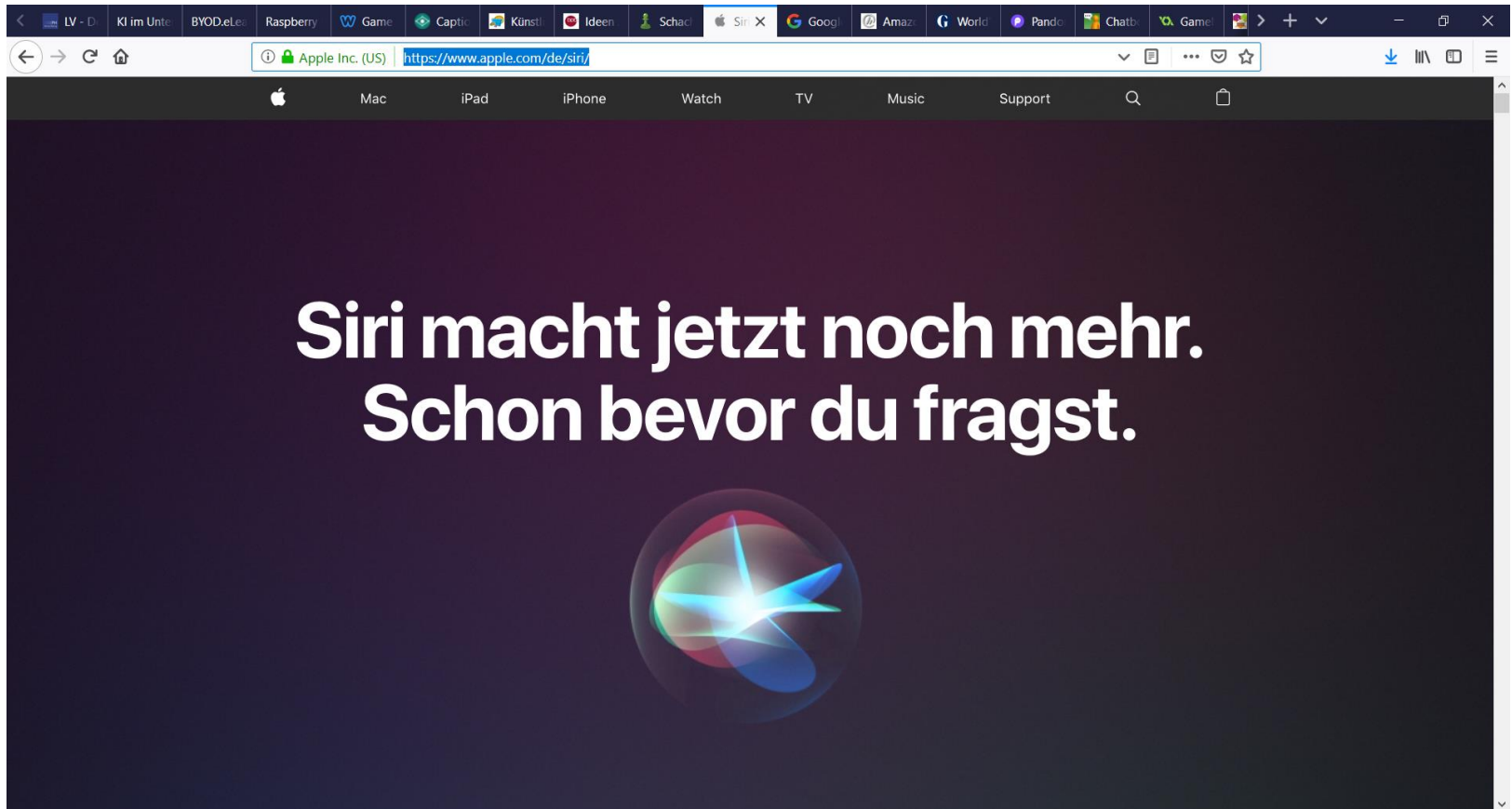
Starten

Computer Level 2

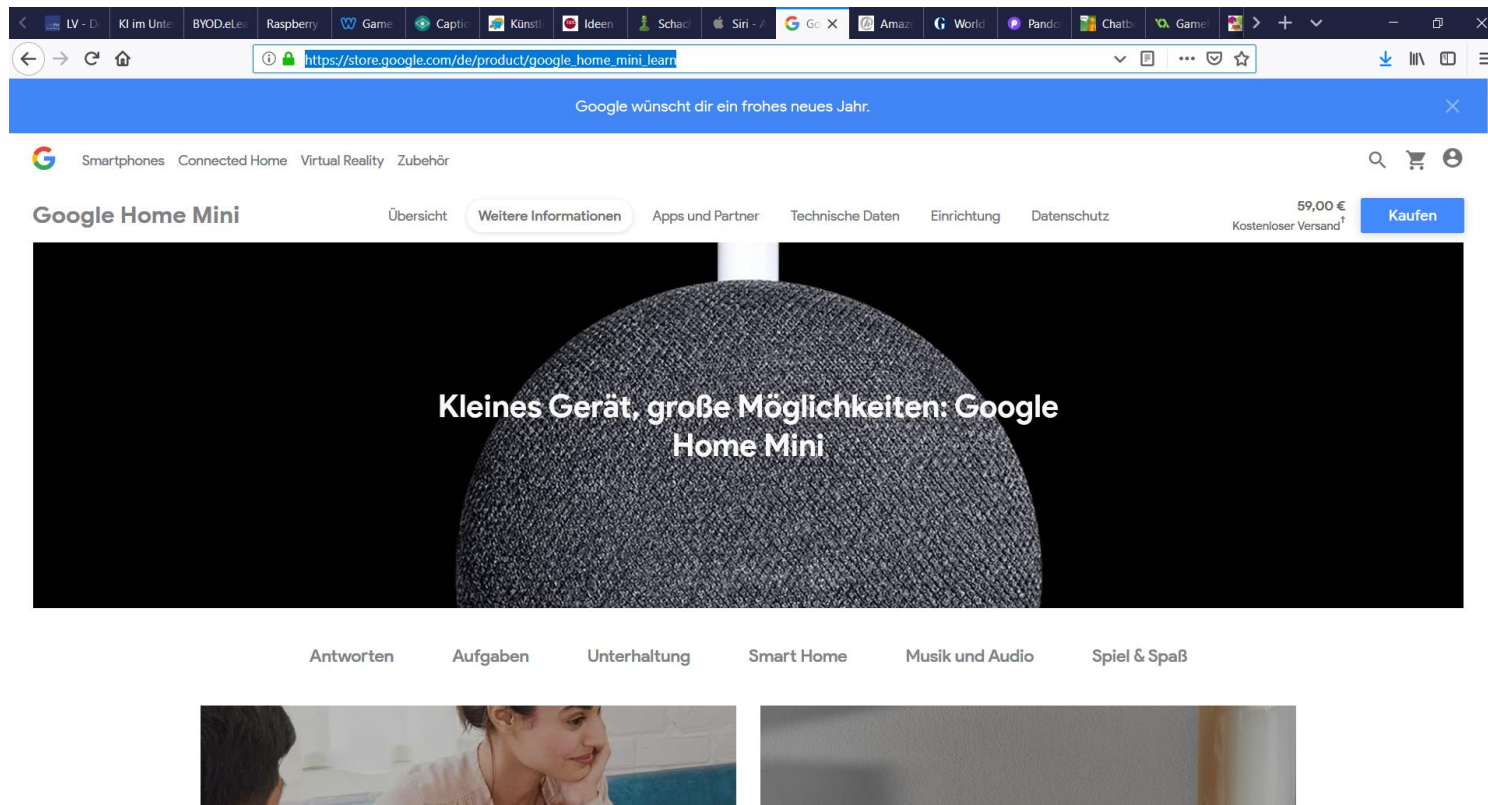
Anfangsstellung

Gast

<https://www.apple.com/de/siri/>



https://store.google.com/de/product/google_home_mini_learn



https://www.heise.de/newsticker/meldung/Amazon-gibt-intime-Sprachdateien-preis-4254716.html

Amazon gibt intime Alexa-Sprachdateien preis

Durch einen Fehler von Amazon.de fielen rund 1700 Alexa-Sprachaufzeichnungen in die Hände eines Unbefugten.

Von **Holger Bleich**

(Bild: dpa, Britta Pedersen)

Nun ist Amazon genau das passiert, was Datenschützer immer befürchteten. Nach Recherchen von c't gelangten bei Amazon.de höchst private Sprachaufzeichnungen von Echo-Geräten an fremde Personen. Ob es sich dabei um einen Einzelfall handelt, ist bislang offen.

Application Development Tools
Build Once and Deploy Modern Apps For Every Platform, Fast! Find Out How Today.
[VISIT SITE](#)

Armbänder aus Segeltau
JETZT ENTDECKEN

Auch interessant

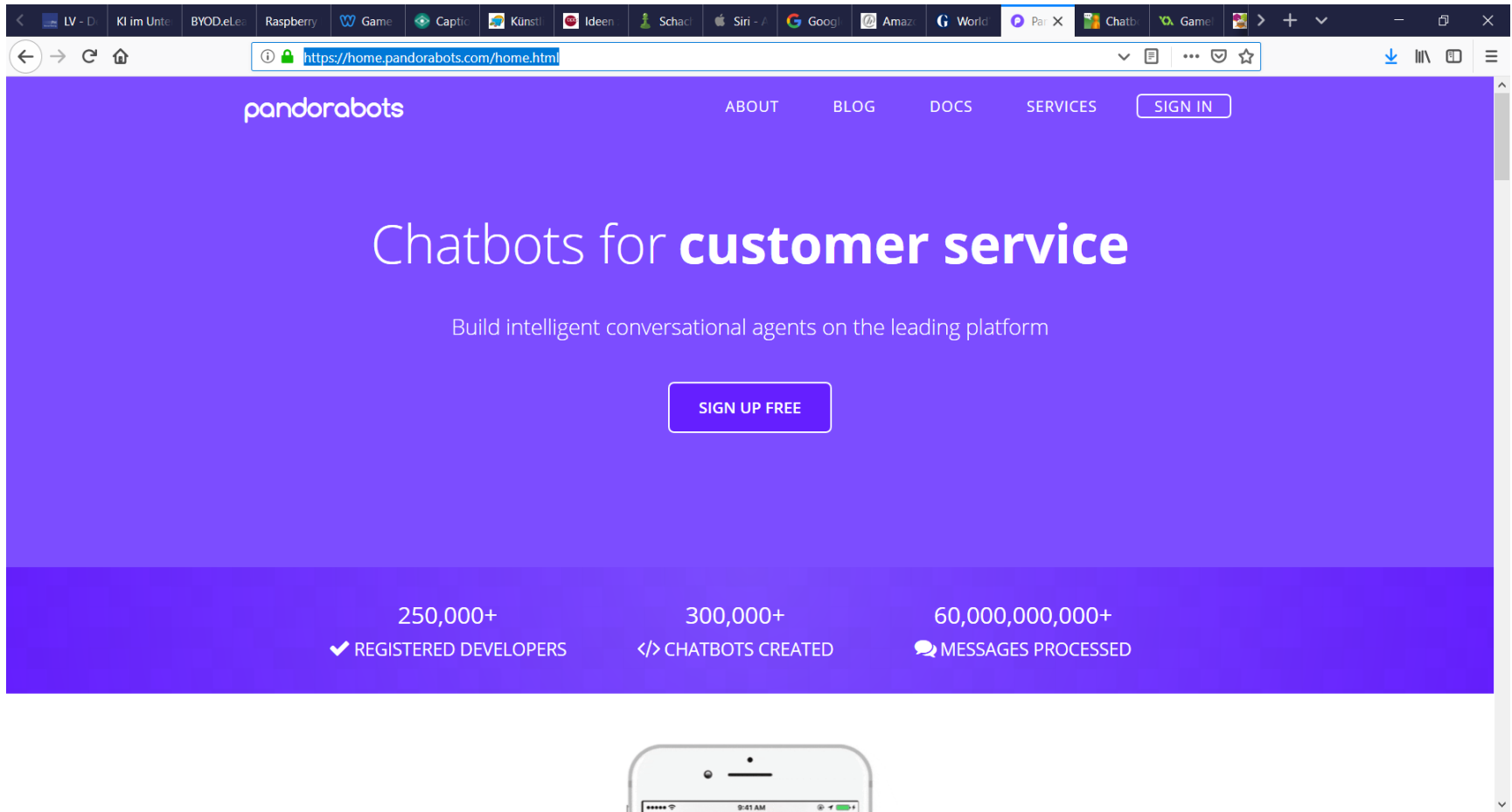
<https://www.theguardian.com/world/2018/nov/09/worlds-first-ai-news-anchor-unveiled-in-china>

The screenshot shows a web browser window with a dark theme. The address bar displays the URL: <https://www.theguardian.com/world/2018/nov/09/worlds-first-ai-news-anchor-unveiled-in-china>. The browser's tab bar shows several open tabs, including 'LV - D', 'KI im Unte', 'BYOD.eLe...', 'Raspberry', 'W Game', 'Capti...', 'Künstl', 'Ideen', 'Schad', 'Siri - /', 'Googl', 'Amaz', 'Wi X', 'Pando', 'Chatb', 'V Game', and a search engine icon.

The main content area displays a news article from The Guardian. The article is titled "World's first AI news anchor unveiled in China" and is categorized under "China". The sub-headline reads: "The 'tireless' artificial news readers simulate the voice, facial movements, and gestures of real-life broadcasters". The author is "Lily Kuo in Wuzhen" and the article was published on "Fri 9 Nov 2018 03:59 GMT". There are 9,630 views and social media sharing icons for Facebook, Twitter, and Email. The article features a video player with a play button and a duration of 0:30. The video thumbnail shows a man in a suit and glasses, identified as the AI anchor Qiu Hao, against a blue, futuristic background with the text "Sogou 搜狗 AI ANCHOR". Below the video, the text states: "China's state news agency Xinhua this week introduced the newest members of its newsroom: AI anchors who will report 'tirelessly' all day every day, from anywhere in the country. Chinese viewers were greeted with a digital version of a regular Xinhua news anchor named Qiu Hao. The anchor, wearing a red tie and pin-striped suit, nods his head in emphasis, blinking and raising his eyebrows slightly."

On the right side of the browser, there is an advertisement for Conrad electronics. The ad is titled "Advertisement" and features the Conrad logo. It displays various electronic tools and equipment with their respective discount percentages: a multimeter (-22%), a power supply (-11%), a digital multimeter (-15%), a power supply (-13%), a VOLT-CRAFT PHT-0... power supply (69,99 € to 64,99 €), and a multimeter (-32%).

https://home.pandorabots.com/home.html



https://www.chatbots.org/chatbot/a.l.i.c.e/

The screenshot shows a web browser window displaying the website for A.L.I.C.E. (Artificial Linguistic Internet Computer Entity). The browser's address bar shows the URL <https://www.chatbots.org/chatbot/a.l.i.c.e/>. The website has a navigation menu with tabs for Directory, Business, Research, Awards, Community, and Forums. A news banner at the top reads: "NEWS: Chatbots.org survey on 3000 US and UK consumers shows it is time for chatbot integration in customer service! read more..".

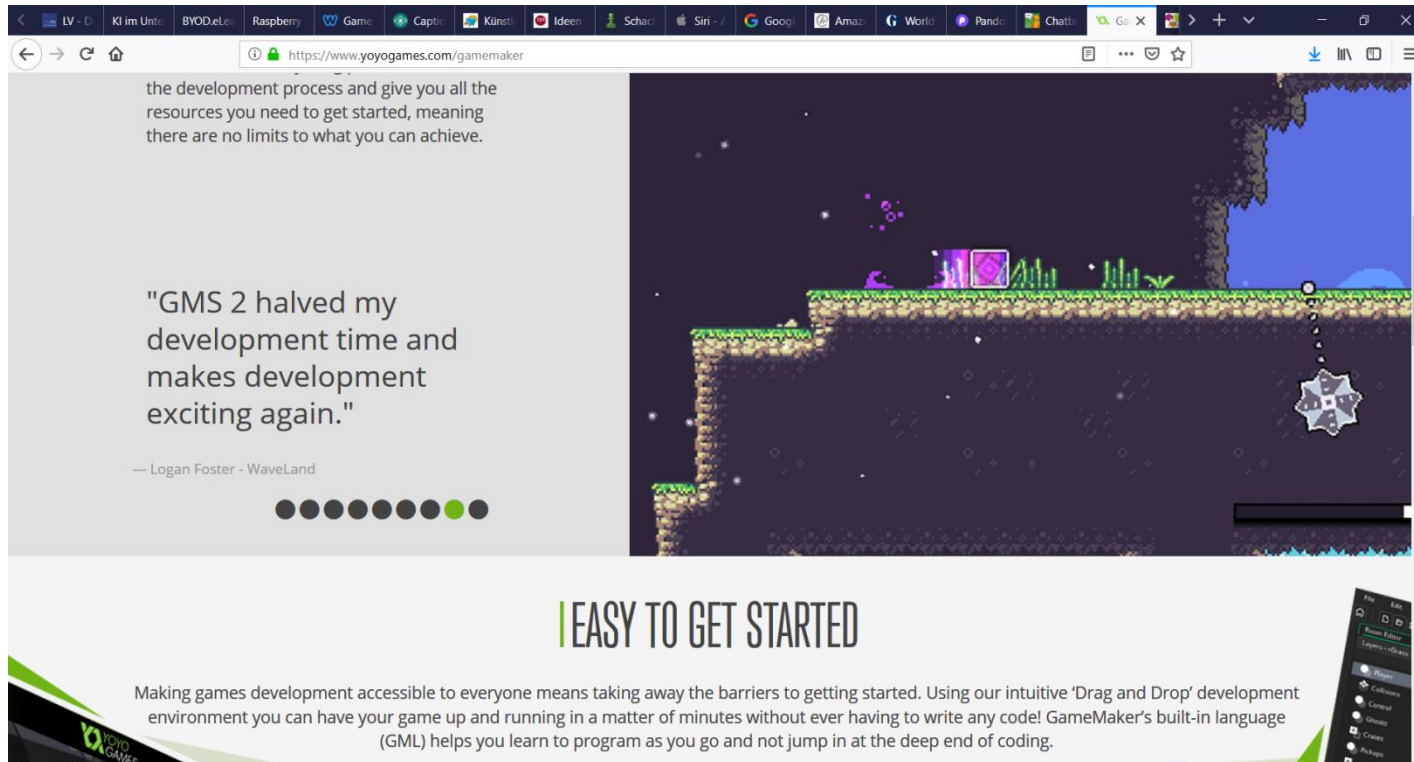
The main content area features a search bar, a "Set country filter" section with "Popular countries" (United States (280), United Kingdom (150), Poland (142), Netherlands (136), France (97)) and "All 60 countries (1374)", and a "Languages" section listing various languages and their counts.

The central section is titled "A.L.I.C.E. (A.L.I.C.E. A.I Foundation)" and includes a profile picture of a woman. The text describes A.L.I.C.E. as a free software chatbot created in AIML (Artificial Intelligence Markup Language), an open, minimalist, stimulus-response language for creating bot personalities like A.L.I.C.E. It also mentions that the developer, Richard Wallace, has a Ph.D. in computer science from Carnegie Mellon University (1989) and founded the ALICE A.I. Foundation in 2001 to promote the development and adoption of the AIML (Artificial Intelligence Markup Language) open standard for chat bots.

Below the main text is a "CHAT NOW!" section with contact information for Facebook, iPhone, and Web. The "Chatbot Details" section is partially visible at the bottom.

On the right side, there are several sidebar sections: "International Media Enquiries" featuring Erwin van Lun, CEO/Founder of Chatbots.org, with contact information; a "Contribute Add your chatbot" button; "Hot on AI Zone" with a list of recent news items; and "News News News" with a list of news items.

<https://www.yoyogames.com/gamemaker>



the development process and give you all the resources you need to get started, meaning there are no limits to what you can achieve.

"GMS 2 halved my development time and makes development exciting again."

— Logan Foster - WaveLand

EASY TO GET STARTED

Making games development accessible to everyone means taking away the barriers to getting started. Using our intuitive 'Drag and Drop' development environment you can have your game up and running in a matter of minutes without ever having to write any code! GameMaker's built-in language (GML) helps you learn to program as you go and not jump in at the deep end of coding.

The screenshot shows a browser window with the URL <https://www.yoyogames.com/gamemaker>. The page features a testimonial from Logan Foster about WaveLand, a quote about development time, and a section titled 'EASY TO GET STARTED' with a descriptive paragraph. A game preview is visible on the right, showing a 2D platformer scene with a character, a star, and a health bar. A sidebar menu is partially visible on the bottom right.

http://appinventor.mit.edu/explore/

The screenshot shows the MIT App Inventor website homepage. At the top, there is a navigation bar with the MIT App Inventor logo, menu items for 'About', 'News & Events', and 'Resources', and a prominent orange 'Create apps!' button. Below the navigation bar is a search bar with the text 'Anyone Can Build Apps That Impact the World' and a 'Google Custom' search button. A row of social media icons (Facebook, Google+, Twitter, YouTube, LinkedIn, and WhatsApp) is displayed. The main content area features a large photo of a group of people at a workshop, with the headline 'MIT Master Trainers in Educational Mobile Computing 2018'. Below the photo, it states '41 new Master Trainers participate in 3 day workshop at MIT'. A blue bar displays user statistics: 'Active Users: This Month: 629.8K This Week: 257.2K Today: 37.8K' and 'Registered Users: 8.2M Countries: 195 Apps Built: 34.0M'. An orange bar at the bottom of this section says 'App Inventor code is open source'. To the right of the main content, there is a 'Donate!' button, a video of a man speaking, and a badge for 'MassTLC 2017 Distinguished Leader Award'. Below this is a large orange button that says 'Try our App Building Guides for the Youth Mobile Power Series' and a note 'Made in partnership with YR Media.'. At the bottom right, there is a 'Tweets' section by @MITAppInventor, showing a tweet from MIT App Inventor retweeted by MassTLC EdFoundation.

<https://www.welt.de/kmpkt/article181729572/Jeopardy-Quiz-Kennst-du-die-Fragen-auf-diese-10-Antworten.html>

WELT

Abonnement Ticker Suche Login

10 / 10

4,6 Milliarden

Wie viele Jahre ist unsere Erde alt?

Wie viele Menschen gibt es auf der Erde?

Wie viele Galaxien hat das Universum?

Wie viele Insektenarten gibt es auf der Erde?

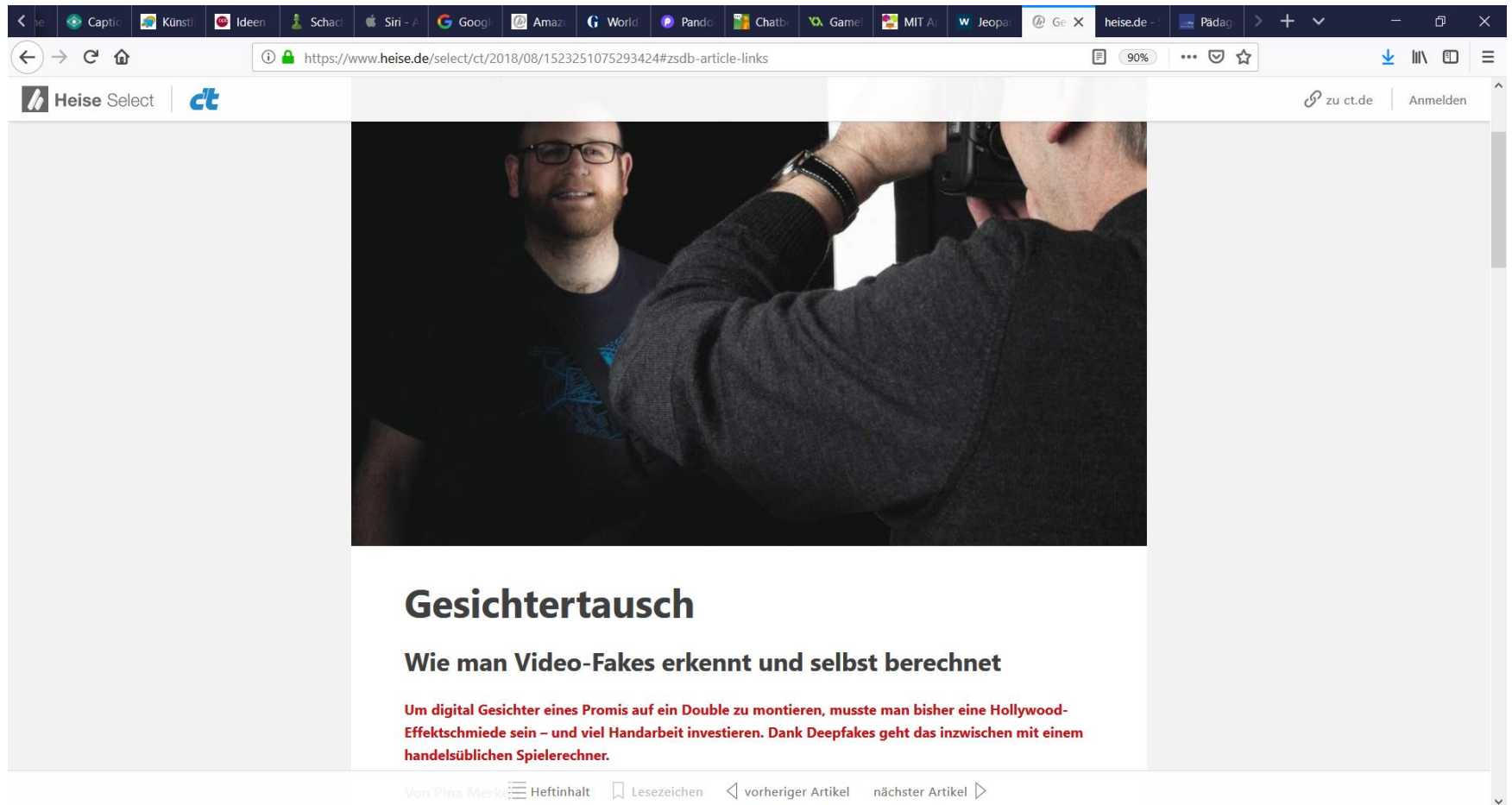
PEUGEOT

PEUGEOT READY TO GO

JETZT MIT MESSEBONUS¹⁾ + 0% LEASING²⁾ + LAGERBONUS²⁾

JETZT PROFITIEREN

https://www.heise.de/select/ct/2018/08/1523251075293424#zsdb-article-links



Heise Select | ct

zu ct.de | Anmelden

Gesichtertausch

Wie man Video-Fakes erkennt und selbst berechnet

Um digital Gesichter eines Promis auf ein Double zu montieren, musste man bisher eine Hollywood-Effektschmiede sein – und viel Handarbeit investieren. Dank Deepfakes geht das inzwischen mit einem handelsüblichen Spielerechner.

Von Pins Merkmal Heftinhalt Lesezeichen < vorheriger Artikel nächster Artikel >

http://jobs.heise.de/Job/Systemberater-in-Deep-Learning-Plattform.285134375.html

The screenshot shows a web browser window displaying a job listing on the heise.de website. The browser's address bar shows the URL: `jobs.heise.de/Job/Systemberater-in-Deep-Learning-Plattform.285134375.html`. The page title is "Systemberater*in Deep Learning Plattform".

Key details from the job listing:

- Job ID:** DE00629962
- Company:** BOSCH
- Created:** Job erstellt am 07.01.2019
- Standort:** Stuttgart, Deutschland
- Tätigkeitsbereich:** Informationstechnologie
- Einstieg als:** Berufseinsteiger/in
- Arbeitsmodell:** Vollzeit
- Startdatum:** Nach Vereinbarung

A blue button labeled "Jetzt bewerben" is visible below the job details. At the bottom of the page, there is a "Willkommen bei Bosch" banner with a video player showing "Making a mark with IoT: How Bosch ...". Below the banner, there are social media sharing options (Empfehlen, Tweet, +1) and a "Bewerben" button. A "heise Jobs" logo is also present in the bottom left corner.

f t in Add text

HOME BASICS A. TURING AI 2019 KONZEPTE TENSOR FLOW EX MACHINA UE IMPRESSUM

KUNSTLICHE INTELLIGENZ / AI

IM UNTERRICHT

Sammlung und Fortbildungen zum Thema im Vorarlberger eLearning-Cluster

„Bestehst DU den Turing-Test?“

ELEARNINGCLUSTER.AT

ARTIFICIAL INTELLIGENCE & NEURONAL NETWORKS

Aktivität statt Passivität !

Lerne wie eine KI dazulernt und setze deine Ideen und Wünsche kreativ damit um.
Grundkompetenzen der Informatik & Programmierung.

Eine DIY (Do It Yourself) - Kreativaktion des eLC-V mit Unterlagen auf Open-Content-Basis CC BY 4.0

Selbstgesteuertes Experimentieren und Erforschen mit Kreativität!

Unterlagen:

[http:// Ki.eLearningCluster.at](http://Ki.eLearningCluster.at)

Quellen:

1. eLC / eLSA:

<http://eLearningCluster.com>

<http://eLearningCluster.at>

2. Projekte:

<http://gmk.eLearningCluster.at>

<http://Raspberry.eLearningCluster.at>

<http://PS3Grid.eLearningCluster.at>

<http://Roboter.eLearningCluster.at>

<http://GBL.eLearningCluster.at>



3. Netbook-Projekt Austria:

<http://netbooks.bildungstechnologie.org/>

4. Tablet- /iPad-Koffer-Projekte:

<http://www.eLearningCluster.at>

Vorarlberg

5. eL-Didaktik:

<http://www.eDidaktik.at>

www.GameBasedLearning.at

