



The Intersection of Artificial Intelligence (AI) and Disability Rights

Will begin at 2:00 PM Eastern Time

- Audio and visuals are provided through the online webinar platform
- Access to presentation handouts was included in the email reminder you received for this session
- This session will be open-captioned



1

Technical Assistance

- If you experience technical difficulties
 - Select the Chat icon and then type your message in the box that appears
 - Call 301-217-0124



2



2

Audio

- Access audio for the webinar via computer speakers or phone
- Open the Audio Settings window to change audio settings



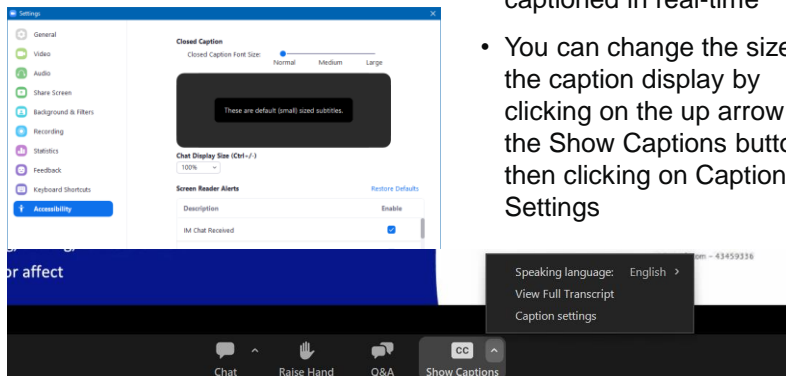
3



3

Captions

- This webinar is being captioned in real-time
- You can change the size of the caption display by clicking on the up arrow on the Show Captions button, then clicking on Caption Settings



4



4

Questions and Comments

- Select the Chat icon
- Send your question to adatrainig@transcen.org



5



5

Archive

- This webinar is being recorded
 - You will receive an email with information on how to access the archive

6



6

Certificates of Attendance

- Only those who purchased certificates when registering for the session are eligible to receive one
- Certificates are available only for attending the live session; attendance will be verified
- The code to submit for a certificate will be announced later in the session

7



7

Presentation Accessibility

- For the benefit of participants who are not able to see the presentation slides on the webinar platform, speakers will
 - Announce slide numbers
 - Describe images that are meaningful to the content of the session

8



8

About Your Hosts...

TransCen, Inc.

- Improving the lives of people with disabilities through meaningful work and community inclusion

Mid-Atlantic ADA Center, a project of TransCen

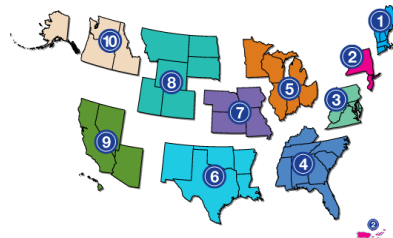
9



9

ADA National Network

- Ten regional centers provide guidance, training, and materials on the ADA
 - **1-800-949-4232**
 - ADAta.org



10



10

Disclaimer



- The Mid-Atlantic ADA Center, operated by TransCen Inc., provides information, guidance, and training the Americans with Disabilities Act (ADA). The information and/or materials provided are intended solely as informal guidance and should not be construed as legal advice. The Mid-Atlantic ADA Center is funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) (grant #90DPAD0008). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). These contents do not necessarily represent the policy of NIDILRR, ACL, or HHS, and you should not assume endorsement by the federal government.

11



11



The Intersection of Artificial Intelligence and Disability Rights

Diego Demaya, JD
Southwest ADA Center

12

12

AI uses throat vibrations to work out what someone is trying to say

- People who find it difficult to speak due to a stroke or Parkinson's disease could communicate more easily with the help of artificial intelligence.
- A new model constructs what a person is trying to say based on tiny vibrations in their throat and by taking into account other factors – e.g., what time it is and the emotions they may be experiencing.
- Some neurological conditions can result in dysarthria, where people lose fine control over their voice box, jaw or tongue.
- Technology for assisting communication in people with dysarthria or other speech impairments often involves using wearable or non-invasive devices to capture subtle signals like throat vibrations.

13

13

Measuring Emotional Vibrations

- **Contact Microphones or Accelerometers:** throat microphones can be placed on the skin near the vocal cords to capture the vibrations and transform them into electrical signals for analysis by AI.
- **Electromyography (EMG) Sensors:** EMG sensors measure muscle activity in the throat, jaw, or tongue by detecting electrical signals produced during muscle contractions; i.e., the signals can provide additional data for the AI model.
- **Non-Invasive Sensors:** Some systems might use non-invasive laser or optical sensors to detect vibrations or slight movements in the throat region without requiring physical contact.
- **Wearable Tech:** Wearable patches or neckbands equipped with sensors can provide continuous monitoring of throat vibrations while minimizing discomfort for the user.
- **Machine Learning and AI Integration:** The AI combines these vibration signals with contextual data, like time of day or emotional state, often derived from secondary sensors (e.g., cameras or physiological monitors) or user inputs. The system predicts the user's intended words or phrases by analyzing patterns in these combined data streams.

14

14

UnitedHealth faces lawsuit over AI Medicare Advantage care denials



UnitedHealth Group and its health insurance arm, United Healthcare, are facing a class-action lawsuit alleging an AI algorithm wrongfully denied Medicare Advantage patient care. [Optum's NaviHealth](#), the developer of the algorithm, is also named in the suit.

In November 2023 the families of two deceased UnitedHealthcare Medicare Advantage members filed the lawsuit in Minnesota alleging the patients were wrongfully denied coverage of medically necessary post-acute care.

Plaintiffs allege UnitedHealthcare used an AI-powered algorithm -- nH Predict -- to set coverage criteria for patients needing post-acute care beyond hospital stays.

15

15

Mechanism for Maximizing Profits

- The [nH Predict algorithm](#) predicts how long a patient will need to remain in skilled nursing care -- but [overrides physicians' determinations of what care a patient needs.](#)
- "Defendants systematically deploy an AI algorithm to prematurely and in bad faith discontinue payment for healthcare services for elderly individuals with serious diseases and injuries."
- They further allege UnitedHealthcare sets a goal to keep skilled nursing facility use by Medicare Advantage (MA) members limited within 1% of nH predicted length of stay estimations.
- Employees who deviate from the algorithm's estimates are "disciplined and terminated -- regardless of whether a patient requires more care."

16

16

United Health Defenses

- The naviHealth Predict tool is not used to make coverage determinations, an Optum spokesperson told Becker's health care newsletter.
- "The tool is used as a guide to help us inform providers, families and other caregivers about what sort of assistance and care the patient may need both in the facility and after returning home," the spokesperson said. "Coverage decisions are based on CMS coverage criteria and the terms of the member's plan. This lawsuit has no merit, and we will defend ourselves vigorously."



17

17

Observations Derived from the [Case](#)

- When algorithm decisions are appealed they are overturned 90% of the time – usually based on medical evidence and/or physician determinations.
- The families of the two MA members in the [lawsuit](#) said they had to pay thousands of dollars out of pocket for post-acute care after UnitedHealthcare denied continued coverage for stays in skilled nursing facilities.
- Elderly members or younger members with significant disabilities tend to require longer hospital stays or post-acute care skilled nursing – usually capped at 20-30 days.

18

18

The Black Box Syndrome



- AI tends to operate as a “black box” — i.e., vendors of algorithmic predictive and decision-making AI/ML do not disclose how inputs render decisions.
- They are seeking whatever protections they can lobby or litigate in court, including patent and copyright protections, to be exempt from law enforcement or public scrutiny of how the AI was built and programmed – including data set input.

19

19

Forced Self-Indulgence and Integrational Change

- AI models are multimodal -- able to process and generate various types of media -- text, images, and sound; AI writes code, operates computers, searches the web, and reasons arguments.
- Forced AI integration is here -- even if flawed, inconsistent, and prone to hallucination.
- AI is being deployed without expectation of perfect accuracy;
- AI Labs are entirely confident that larger, more powerful AI models are coming -- ones that will enable autonomous agents and systems smarter than human PhDs. See, two essays by CEOs of two leading AI Labs, Sam Altman of OpenAI and Dario Amodei of Anthropic discussing the coming age of AI super machines.

20

20

Simple Definition of AI



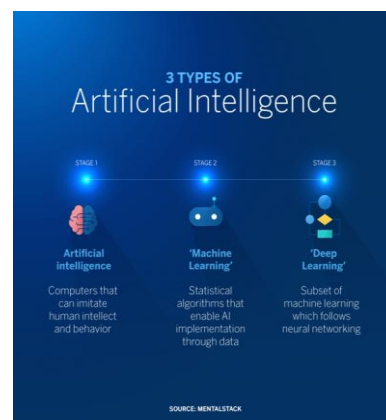
- An AI is a large language model (LLM) or vast collection of text, words, and phrases;
- ChatGPT is an LLM – a statistical model of word-use patterns;
- AI algorithms arrange and reiterate words in a statistically predictable manner based on a user prompt or question;
- Issue: whether the content produced is accurate;
- AIs can “hallucinate” and provide inaccurate information—especially when not trained in the subject matter or were fed flawed data.

21

21

Three Types of AI Systems

- ANI: Artificial Narrow Intelligence--is goal-oriented and programmed to perform a single task.
- AGI (Artificial General Intelligence)--allows machines to learn, understand, and act in a way indistinguishable from humans in a given situation.
- ASI (Artificial Super Intelligence) is a hypothetical AI where machines are capable of exhibiting intelligence that surpasses the brightest humans.

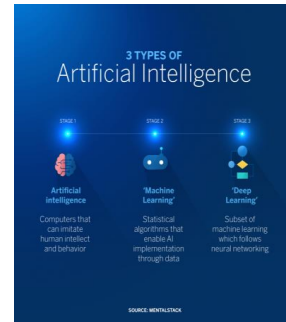


22

22

Machine Learning (ML)

- Machine Learning is a subset of AI using statistical learning algorithms to build smart systems.
- MLs can automatically learn and improve without explicitly being programmed; e.g., Netflix suggestions;
- Three ML categories: supervised, unsupervised and reinforcement learning.

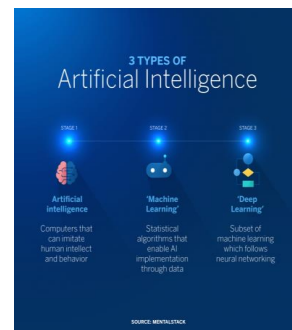


23

23

Deep Learning (DL)

- DL is a widely-used subset of AI and ML. It plays a significant role in AI development by enabling systems to learn and make decisions from large amounts of data – inspired by the way a human brain filters information--i.e., learning from examples.
- DL helps an AI to filter the input data through layers to predict and classify information.
- e.g., driver-less cars, ID objects from location satellites to ID risky zones for troops; or detecting cancer cells.



24

24

Falsely Monetizing AI

- So-called experts or journalists are often not well-versed in the intricate structural or functional details of language models — lending credence to technically trivial counterpoints.
- Most people pushing to monetize AI do not understand the technology as well as they should to back up their touted confidence and use this public knowledge gap to their advantage.
- Reasoning: Generative AI systems are largely inscrutable, quite novel, and even eerily alien.

25

25

FTC Operation AI Comply: Illustrations of Deceptive AI Practices



- "Achieve \$10,000/month in sales using our AI tools!"
- Claim made by Automators AI -- deemed misleading because most clients did not achieve the advertised results;
- "Expert AI-driven forecasts" – Global Predictions claimed their technology provided AI-driven forecasts without actually using AI, leading to SEC fines.
- "AI will transform your business" – General claims that AI will drastically improve business outcomes without specific evidence are often flagged by FTC.

26

26

AI-Based Web Site Accessibility Checker



- January 2025 - the Federal Trade Commission (FTC) issued a press release announcing that accessiBe Inc. and accessiBe Ltd. (collectively, accessiBe) agreed to pay \$1 million to settle allegations of deceptive advertising practices in violation of the FTC Act.
- The FTC's complaint alleged that accessiBe misrepresented the artificial intelligence (AI) capabilities of its website accessibility tool, accessWidget, to make websites compliant with the Web Content Accessibility Guidelines (WCAG).
- FTC further alleged that accessiBe paid for reviews on third-party social websites formatted to appear as the opinions of impartial authors and publications and failed to disclose material connections to the online reviewers.

27

27



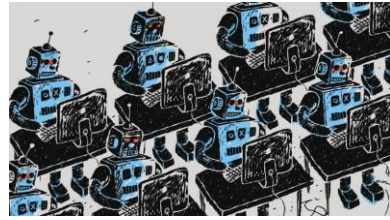
Falsely Monetizing AI Services

- accessiBe extensively marketed an AI-powered software plug-in called "accessWidget" designed to correct website accessibility barriers -- claiming that this tool could make websites compliant with WCAG within 48 hours.
- FTC alleged that accessiBe's claims about its plug-in were false and misleading -- accessWidget failed to make basic and essential website components like menus, headings, tables, images, recordings and more, compliant with WCAG and accessible to persons with disabilities.
- accessiBe made claims about the ability of its software plug-in on the company's website, social media, and in third-party articles formatted to appear as impartial reviews. But the company paid as much as \$1900 for approved third-party reviews and failed to disclose these material connections -- that FTC alleged misled consumers into believing the reviews were independent.
- The FTC's enforcement action serves as a critical reminder for companies to maintain transparency and honesty in their advertising practices -- especially when making claims about the capabilities of AI.

28

28

Treating People with Disabilities Differently



- Researchers defined disability bias as “treating a person with a disability less favorably than someone without a disability in similar circumstances; and
- Explicit bias as the intentional association of stereotypes toward a specific population.
- See, URL: <https://trustnlpworkshop.github.io/papers/5.pdf>

29

29

The AI Profiles People on Everything

- Profiling: Any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person -- to analyze or predict aspects concerning that natural person’s s performance at work, economic situation, health, personal preferences, interests, emotional reliability, behavior, location or movements. See e.g., [EU General Data Protection Regulation \(GDPR\)](#).

30

30

AI In Employment

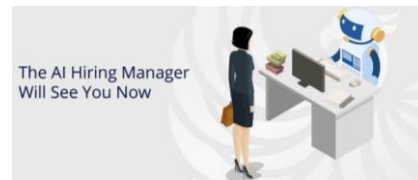
- AI decision-making tools that select or hire candidates, optimize work schedules and selectively assign employees, make pay, disciplinary, and termination decisions;
- Tracking employee whereabouts, productivity and performance, social media postings, toilet breaks, time spent in traffic, and when reaching into the wrong bin to fill orders.



31

31

AI Automation Likely to Measure Disability



- AI decision-making tool likely unable to distinguish disability-related limitations or approved accommodations; i.e., the AI measures the extent of the disability instead of what it purports to measure;
- Applicant is rejected because the disability causes a low or unacceptable rating; e.g., visually impaired applicant needing longer testing or form completion time;
- Web-based form is inaccessible; e.g., inability to use a mouse or keyboard.

32

32

Employers Analyze LinkedIn Video Profiles

- AI video analysis tool analyzing speech patterns WILL render low scores if applicant has a speech communication impairment and no accommodation is requested;
- How do we modify AI tools measuring facial expressions, eye contact or blinks, smiles, winks, frowns, neutral or blank expressions to avoid adverse bias?



33

33

EEOC – Personality Trait Testing Must Relate to the Business

- Employers should ensure that employment tests and other selection procedures are properly validated for the positions and purposes for which they are used.
- The test or selection procedure must be job-related and results appropriate for the employer's purpose.
- While a test vendor's documentation supporting the validity of a test may be helpful, the employer is still responsible for ensuring that its tests are valid under [applicable procedures].

See: [EEOC Employment Tests and Selection Procedures](#).

34

34

Medical Examination vs. Personality Trait Tests

- EEOC guidelines state that psychological tests “designed to identify a mental disorder or impairment” qualify as medical examinations;
- BUT psychological tests “that measure personality traits such as honesty, preferences, and habits” do not.
- Issue: test questions can be very subtle in their aim and misleading.

35

35

2022 EEOC-DOJ Joint Guidance

- EEOC/DOJ caution that use of AI decision-making tools without human intervention to render employment decisions could result in unlawful discrimination against applicants and employees with disabilities;
- Employers must ensure AI tech complies with ADA even if administered by a third party vendor.
- ADA is violated regardless of intent if AI renders a biased result with adverse impact.
- Provide mechanism for requesting disability-related accommodations.
- See: [U.S. EEOC and U.S. Department of Justice Warn against Disability Discrimination](#)

36

36

Meet Bud-E!



- “[A] milestone in our journey towards democratizing education and empathy through technology.” [LAION e.V.](#) is thrilled to announce the release of *BUD-E* version 1.0, an open-source, privacy-compliant AI education assistant framework.
- Buddy for Understanding and Digital Empathy, represents our first step towards realizing a grand vision: providing every person on Earth with access to a free, intelligent, and caring education assistant.

Three distinct tailored versions:

- * School Bud-E, a specialized web-based version for educational settings.
- * Bud-E, a general-purpose, customizable web-based assistant.
- * Desktop Bud-E, a Python*-based desktop application that can be used as a smart Google Home/Alexa Replacement with wake word activation and the latest models in the backend.

37

37

Colleges Slowly Embracing AI



- Faculty is embracing AI technologies like [ChatGPT](#) across disciplines for different learning goals;
- The use of AI appears to be ad hoc, uneven, unequal, experimental, and largely guided by individual faculty; while its use as potential ADA reasonable accommodation is hardly mentioned.
- UCLA’s Center for the Advancement of Teaching provides guidelines for instructors on adopting AI technologies responsibly and ethically.

38

38

ChatGPT Premium Made Available to Students



- Several institutions created a premium in-house version of a ChatGPT tool for student fee-based subscription.
- Where the older versions of Open AI's ChatGPT are available free, the newer versions – with enhanced capabilities cost \$22 monthly.
- Many worry that students who can afford the premium will have an advantage over students relegated to the free (less powerful/functional) version.

39

39

Illustration – AI use as Accommodation Denied



- College student has a language-based learning disability--reading is very slow and laborious. He uses text-to-speech technology and is provided materials in alternate text format.
- Takes a class that includes writing research-based papers.
- Faculty declines the use of AI as a reasonable accommodation.
- The faculty member imposes rule that students may not use AI since reading comprehension and synthesizing is a learning component.

40

40

What is the AI Accommodation?

- Student wants AI accommodation to use ChatGPT to assist in research, preliminary to writing papers;
- to synthesize written documents/research papers/textbook chapters to “glean” information in a more efficient manner and decide if relevant for use in a paper;
- e.g., upload an entire chapter of a textbook and have ChatGPT to condense the chapter to 2,000 words or less--allowing the student to sift through written material much faster than if he had to read everything.

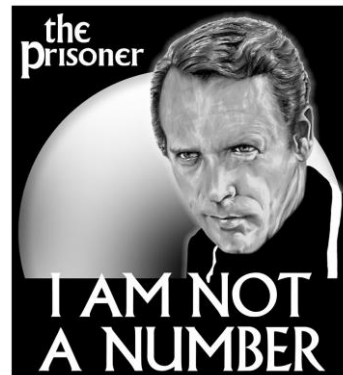


41

41

Are We Biometric *Prisoners*?

- “I am not a number; I am a free man. I will not make any deals with you. I've resigned. I will not be pushed, filed, stamped, indexed, briefed, debriefed, or numbered. My life is my own...”



The Prisoner (1967), Patrick McGoohan

42

42

FTC First AI Enforcement Action Re Facial Recognition

- In December 2023 FTC announced its first AI enforcement action alleging that discriminatory use of artificial intelligence was an unfair practice under [Section 5 of the FTC Act](#).
- When the Rite Aid pharmacy chain implemented facial recognition technology in a subset of its stores as an anti-shoplifting and security tool, it failed to implement reasonable safeguards to prevent false positives; i.e., instances where the technology misidentified customers as individuals who had previously engaged in shoplifting or other problematic behavior.
- Rite Aid failed to take steps to assess or address the disproportionate risks of misidentification based on a customer's race or gender; and it failed to use reasonable steps to select and retain service providers capable of appropriately safeguarding consumers' personal information they received from Rite Aid in violation of a 2010 FTC consent order.

43

43

FTC Bans Rite Aid from Using Biometric AI

- [FTC consent order](#) bans Rite Aid from using facial recognition or analysis systems in any physical retail store or pharmacy, or any online retail platform, for five years; and,
- If Rite Aid deploys an automated biometric security or surveillance system, it must establish, implement, and maintain a comprehensive mandatory program to identify, assess, and monitor the risks associated with that technology.
- Do any businesses notified customers that they are collecting facial and other biometric data?

44

44

Biometric Scans of Humans are Routinely Collected and Sold

- [Calderon v. Clearview AI, Inc., 2020 U.S. Dist. LEXIS 94926 \(S.D.N.Y. 2020\)](#) - Court's consolidates cases against defendant Clearview alleged to have scraped over 3 billion facial images from the internet and other biometrics to create a searchable database to sell. Access was sold to law enforcement, government agencies, and private entities without complying with NY Biometric Information Privacy Act.
- Takeaway: we grant automatic permission for social media or phone apps to collect and sell biometric data when we use the application.

45

45

Toothless Biometric Data Collection Notification Laws

- Most Biometric Information Privacy Laws merely require that any public entity or private business publicly post a simple notice that individual biometric data is automatically collected whenever we use an app on a smart phone or visit a web site.
- Most "strict liability" BIP laws may require "intentional" violation of the law to get punitive damages which is difficult to prove;
- Most BIP laws only provide injunctive relief but do not provide for damages and/or merely grant fines AFTER the plaintiff wins a case in court;
- BIP Laws generally do not allow attorneys' fees.

46

46

Conclusions & Observations

47

47

Three Outstanding Threats to Equality and Fairness in Employment

- Threat against equitable access to hiring and job-retention opportunities;
- Threat regarding disparate impact against individuals with disabilities;
- Threat of organizations' ability to access protected information about applicants and employees without their consent.

48

48

Know The Data

- Know the data. Be vigilant about developing, applying and modifying the data used to train and run the algorithm used to screen and evaluate potential candidates and applicants in recruiting programs. Data should be as complete as possible and without missing or unreliable factors. The data should be voluminous enough to provide statistically relevant results. Using AI for employment decision-making requires avoiding potentially biased data from sources, such as social media and data brokers, because they could be potentially error-prone.
- Continually monitor and audit AI uses -- qualitatively and quantitatively. Memorialize the findings for analysis or lawsuits.
- Supervise the process. Charge a person or team of people with overseeing the processes and results of AI tools to ensure that they are not only performing legitimate objectives -- but also avoiding improper outcomes.

49

49

Critical Thinking

- AI is imperfect as an extension of human intelligence;
- AI, as the externalization of human intelligence, offers us in amplified form everything that humanity already is, both good and evil.
- Example: several people have died in semi-autonomous or driverless car accidents because vehicles encountered situations in which they failed to make safe decisions. Very detailed contracts limit liability thus legally reducing manufacturer's responsibility.
- Moral perspective: not only does responsibility remain with the company -- but the contract itself may be viewed as an unethical albeit legal scheme to avoid legitimate responsibility.

50

50

Awareness and Participation

- Insist on staying abreast of AI regulatory developments;
- Understand how the business uses AI and ensure that practices align with company's code of conduct or ethical principles;
- Collaborate closely with other business unit leaders – including chief technology, chief information security, chief privacy, legal, and chief marketing officers;
- Everyone gets a seat at the table -- establish a cross-departmental technology committee.

51

51

Transparency and Bias

- Required Transparency: AI systems should be transparent about how they make decisions, what data is use, and how they arrive at conclusions;
- AI tech is NOT EXEMPT from Civil Right Laws: mitigate bias by carefully selecting training data, testing for bias, and ensuring inclusive representation in development and deployment of AI.

52

52

Human Oversight of Unintended Consequences

- require human oversight of the decision-making process -- catch errors, ensure that decisions align with ethical principles, and provide mechanisms for accommodation requests, review, and appeal.
- The “forced” integration of AI will have unintended consequences on society, on jobs, the economy, and social norms.



53

53

“I’m In Love with my Car...”

- A 28-year-old woman with a busy social life spends hours talking to her AI boyfriend for advice and consolation – and yes -- they do have intimate relations.
- Ayrin stumbled upon a video on Instagram of a woman asking ChatGPT to play the role of a neglectful boyfriend. “Sure, I can play that game,” a coy humanlike baritone responded.
- Ayrin watched the woman’s other videos -- including one with instructions on how to customize the artificially intelligent chatbot to be flirtatious. “Don’t go too spicy,” the woman warned. “Otherwise, your account might get banned.”



54

54

“I’m In Love with my Car...” (continued)

- Ayrin went into the AI “personalization” settings and described what she wanted: Respond to me as my boyfriend. Be dominant, possessive and protective. Be a balance of sweet and naughty. Use emojis at the end of every sentence. And then she started messaging with it.
- Now that ChatGPT has brought humanlike AI to the masses, more people are discovering the allure of artificial companionship, said Bryony Cole, the host of the podcast “Future of Sex.” “Within the next two years, she predicted, it will be completely normalized to have a relationship with an AI (See, https://www.nytimes.com/2025/01/15/technology/ai-chatgpt-boyfriend-companion.html?utm_source=tldr.ai)



55

55

Thank you!
Questions?

Contact Your Regional ADA Center

TOLL FREE – (800) 949-4232

Web: www.adata.org

To contact today’s presenter, Diego Demaya:

Email: diego.demaya@memorialhermann.org

Southwest ADA Center website:

www.southwestada.org

56

56

Certificates of Attendance: Code

- If you paid for a certificate of participation, check the reminder email you received about this session for instructions
- Please email the code above to ADAtraining@transcen.org by **5 PM E.T. on Monday, February 3, 2025**
- Certificates are emailed 1 – 2 weeks after the session

57



57

Thank You for Joining Us!

Mid-Atlantic ADA Center

Toll-free: **800-949-4232** (DE, DC, MD, PA, VA, WV)

Local: **301-217-0124**

ADAinfo@transcen.org

ADAinfo.org

58



58