

# Uporaba umetne inteligence (AI) v izobraževanju zdravstvene nege

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Umetna inteligenca **krepi in povečuje človeško inteligenco**, namesto da jo nadomešča.

Pri izgradnji sistemov umetne inteligence (AI) je v zdravstvu ključnega pomena, da ne nadomestimo pomembnih elementov človeške interakcije v medicini, ampak da se osredotočimo nanjo ter izboljšamo učinkovitost in uspešnost te interakcije.



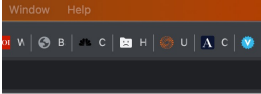
EXCLUSIVE

## WA Education Department slaps ban on artificial intelligence tool ChatGPT in public schools



**Bethany Hiatt** | The West Australian  
Sun, 29 January 2023 7:00PM | [Comments](#)

Bethany Hiatt



TECH

## ChatGPT Banned in New York City Public Schools Over Concerns About Cheating, Learning Development

Education officials say students could use the artificial-intelligence chatbot to do their schoolwork

By [Alyssa Lukpat](#) [Follow](#)

Updated Jan. 6, 2023 12:55 pm ET

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## ChatGPT banned in Italy over privacy concerns

1 April



## New York City blocks use of the ChatGPT bot in its schools



By [Dan Rosenzweig-Ziff](#)

Updated January 5, 2023 at 6:31 p.m. EST | Published January 5, 2023 at 4:44 p.m. EST

## Cheating with ChatGPT? Controversial AI tool banned in these schools in Australian first

NSW has restricted the use of ChatGPT, an artificial intelligence application, in public schools ahead of the first term starting.





# Banning ChatGPT In Schools Is Like Banning Calculators In Math Class

Joe Toscano Contributor

Entrepreneur; author; privacy advocate ft'd Netflix  
The Social Dilemma

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Apr 20, 2023, 11:38am EDT

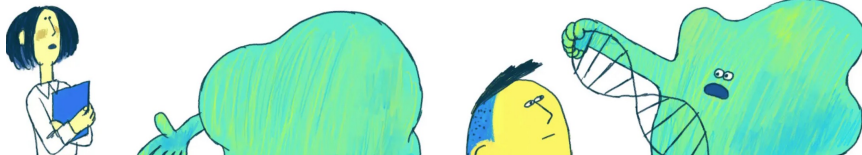


THE SHIFT

## Don't Ban ChatGPT in Schools. Teach With It.

OpenAI's new chatbot is raising fears of cheating on homework, but its potential as an educational tool outweighs its risks.

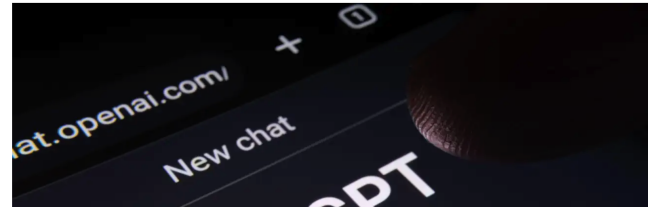
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# New York City Schools Lift Ban on ChatGPT, Say Initial Fear 'Overlooked the Potential' of AI

David Banks, the chancellor of New York City's public schools, said the system would now encourage and support teachers and students in their exploration of AI.

By Jody Serrano Published May 19, 2023 | Comments (8)



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## Banning ChatGPT will do more harm than good

A high school senior argues that ChatGPT can help reshape education for the better.

By Rohan Mehta

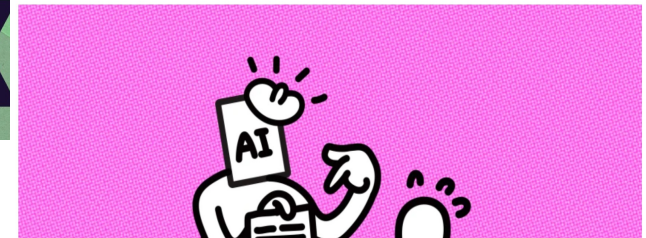
April 14, 2023



## Don't Ban ChatGPT. Use It as a Teaching Tool

No, AI can't replace human creativity, but that doesn't mean it has no place in the classroom

By Cherie Shields — January 05, 2023 4 min read





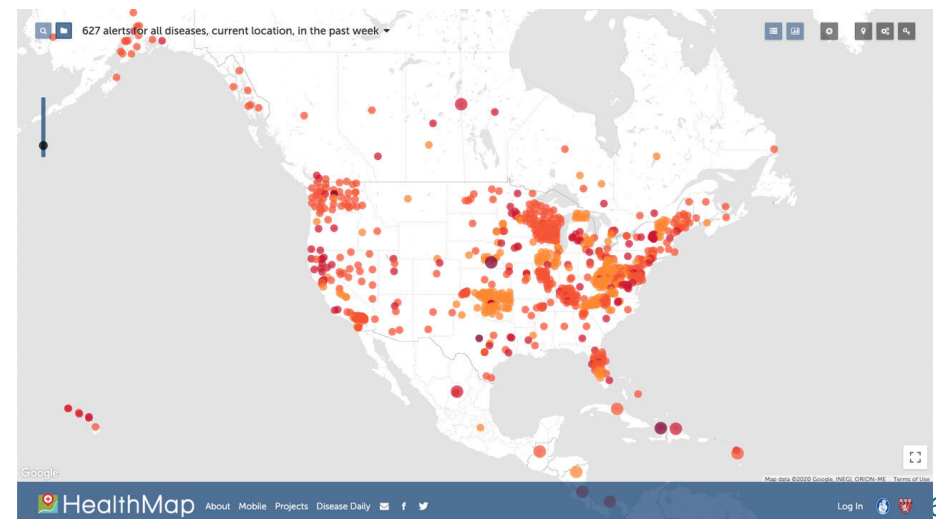
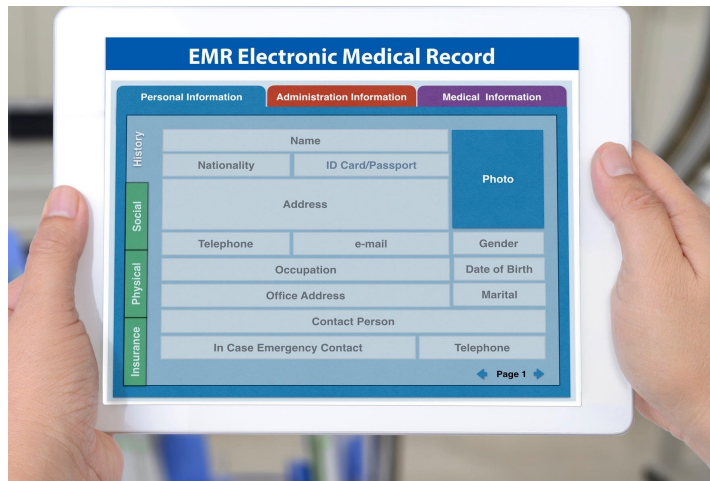
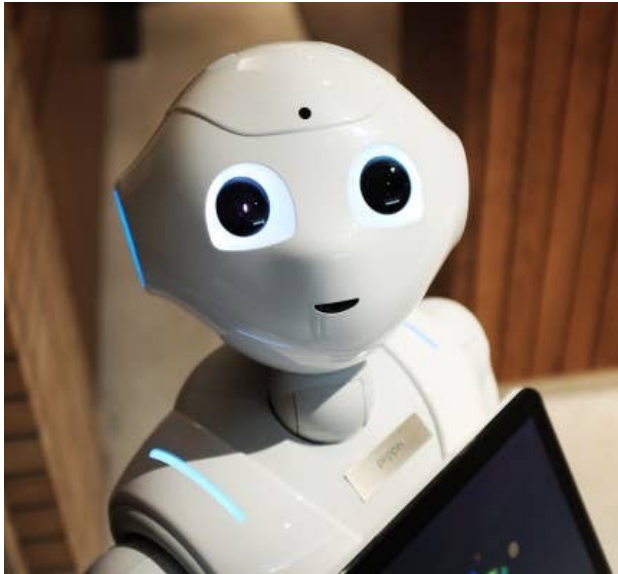


# Kaj je umetna inteligenca?

- Umetna inteligenca (artificial intelligence; AI) je izraz, ki se uporablja za **opis uporabe računalnikov in tehnologije za simulacijo inteligentnega vedenja in kritičnega mišljenja**, primerljivega s človeškim bitjem (Amisha, et al., 2019).
- Umetna inteligenca je subjekt, ki izvaja vedenje, ki bi ga lahko oseba upravičeno imenovala inteligentno, če bi človek naredil nekaj podobnega (Riedl, 2023).



# Uporaba umetne inteligence v zdravstvu



# Uporaba umetne inteligence v zdravstvu

Obstajajo številne definicije umetne inteligence, standardizacije pa ni (vsak članek uporablja svojo definicijo umetne inteligence). Podobno je tudi na področju ZN - definicija umetne inteligence v zdravstveni negi ni jasno opredeljena.



The screenshot shows the homepage of the Nursing and Artificial Intelligence Leadership (NAIL) Collaborative. The header includes navigation links: Home, Leadership group, Publications, Past and upcoming meetings, Sponsors, and Contact. The main heading reads "NURSING AND ARTIFICIAL INTELLIGENCE LEADERSHIP (NAIL) COLLABORATIVE". Below this, the vision and mission statements are provided. The vision is "To reimagine and transform nursing with AI." The mission is "We focus on nurses- the largest sector of healthcare providers worldwide- and believe that every nurse has the right to use cutting-edge AI tools to advance people's health. Our mission is to advocate, educate, and study health AI tools to make them safe, equitable, and user-friendly." A section titled "Collaborators" lists five partner institutions with their logos: Columbia University, University of Florida College of Nursing, University of Minnesota, The University of British Columbia, and University of Turku.

NAIL

Home Leadership group Publications Past and upcoming meetings Sponsors Contact

## NURSING AND ARTIFICIAL INTELLIGENCE LEADERSHIP (NAIL) COLLABORATIVE

**Vision:** To reimagine and transform nursing with AI.

**Mission:** We focus on nurses- the largest sector of healthcare providers worldwide- and believe that every nurse has the right to use cutting-edge AI tools to advance people's health. Our mission is to advocate, educate, and study health AI tools to make them safe, equitable, and user-friendly.

Collaborators

 COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK

 UF College of Nursing  
UNIVERSITY of FLORIDA

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OF TURKU



# Nursing and Artificial Intelligence Leadership (NAIL) collaborative



Charlene Esteban Ronquillo, RN, PhD



Laura-Maria Peltonen, PhD, RN,  
FEANS, FIAHSI



Lisiane Pruinelli, PHD, MS, RN,  
FAMIA



Martin Michalowski, PHD, FAMIA



Maxim (Max) Topaz, PHD, RN, MA,  
FAAN



“Umetna inteligenca je morda **najbolj transformacijska tehnologija** našega časa, zdravstvo pa je morda **najbolj pereča aplikacija umetne intelligence.**” (Satya Nadella, glavni izvršni direktor Microsofta)

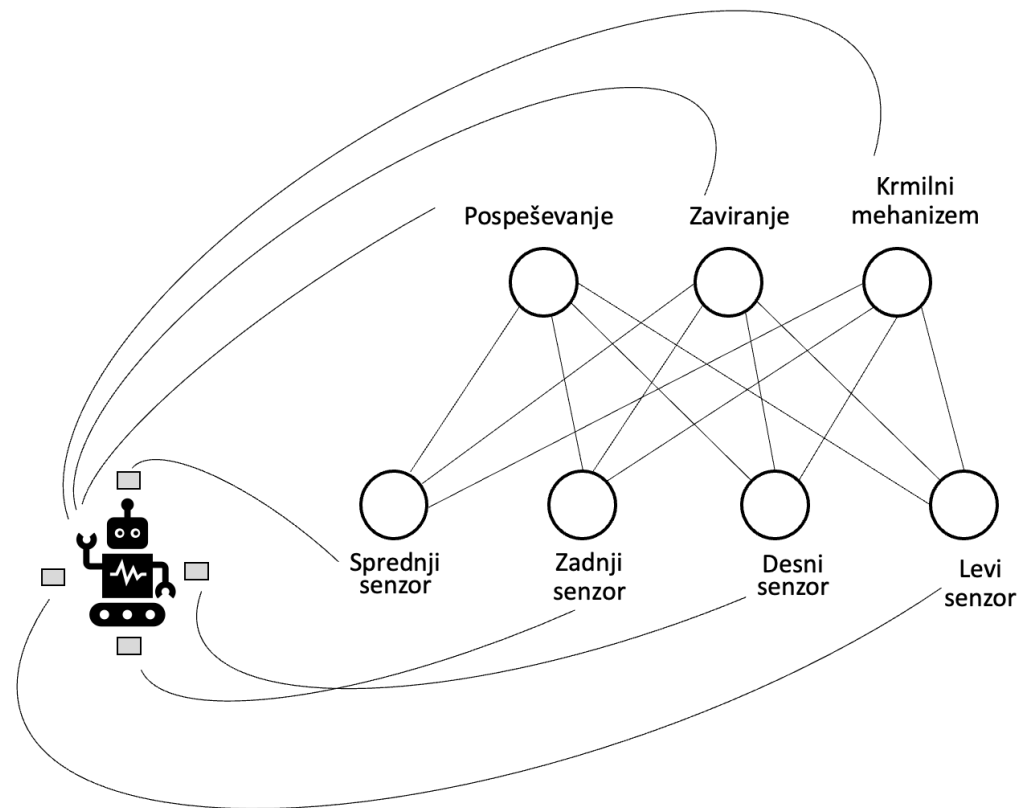
“Zdravstveno varstvo je **poslovna priložnost** ... če pogledate, je zdravstvena dejavnost največja ali druga največja komponenta gospodarstva.” (Tim Cook, glavni izvršni direktor Apple)

“Menimo, da je umetna inteligenca pripravljena **preoblikovati medicino z zagotavljanjem novih podpornih tehnologij**, ki bodo zdravnikom omogočile, da bolje služijo svojim pacientom. Strojno učenje ima na desetine možnih področij uporabe, vendar zdravstvo izstopa kot izjemna priložnost, da koristi ljudem.” (Google Health)



# Kaj je nevronska mreža?

- **Nevronska mreža** je način učenja modelov iz podatkov.
- Temelji na tem, kako so človeški možgani sestavljeni iz mreže med seboj povezanih možganskih celic, imenovanih nevroni , ki prenašajo električne signale.





# Veliki jezikovni modeli (Large Language Models)

Napoved naslednje besede  
(*Next token prediction*)

VJM podamo zaporednje besed,  
kjer želimo izvedeti katera  
beseda bo sledila zadnji.

Primer:

Marija je odšla na \_\_\_\_\_

Marija je odšla na *izlet* 57%

Marija je odšla na *morje* 48%

Marija je odšla na *dopust* 23%

Marija je odšla na *Triglav* 8%

Napoved manjkajoče besede  
(*Masked language modeling*)

VJM podamo zaporednje besed,  
kjer želimo izvedeti katera  
beseda manjka na označenem  
mestu.

Primer:

Janez igra \_\_\_\_\_ vedno sam.

Janez igra *klavir* vedno sam. 67%

Janez igra *violino* vedno sam. 42%

Janez igra *golf* vedno sam. 31%

Janez igra *nogomet* vedno sam. 3%

# Kaj je ChatGPT?



- ChatGPT, kar pomeni **Chat Generative Pre-trained Transformer**, je velik **klepetalni robot**, temelječ na jezikovnem modelu , ki ga je razvilo podjetje OpenAI in je bil predstavljen 30. novembra 2022.
- ChatGPT temelji na posebnih velikih jezikovnih modelih GPT, in sicer **GPT-3.5 in GPT-4**, ki sta bila natančno prilagojena za ciljno uporabo pri pogovoru.
- ChatGPT zna pisati in odpravljati napake v računalniških programih; komponirati glasbo, televizijske igre, pravljice in študentske eseje; odgovarjati na testna vprašanja (včasih, odvisno od testa, celo na ravni nad povprečnim človeškim testirancem); ustvarjanje poslovnih idej; pisati poezijo in besedila pesmi; prevajati in povzemati besedilo; posnemati sistem Linux; itd. (Wikipedia).



# Prednosti uporabe ChatGPT 1/2

- **Učinkovitost:** Opravlja rutinske in ponavljajoče se naloge, kar lahko zaposlene sprost, da se osredotočijo na bolj zapletene in strateške odgovornosti.
- **Prihranek stroškov:** Stroškovno učinkovitejše od zaposlovanja in usposabljanja dodatnih zaposlenih.
- **Izboljšana kakovost vsebine:** Izboljšanje slovničnih ali kontekstualnih napak ali za pomoč pri ustvarjanju idej za vsebino.
- **Izobraževanje in usposabljanje:** Zagotovi razlage o bolj zapletenih temah in služi kot virtualni mentor. Uporabniki lahko zaprosijo tudi za vodnike in morebitna potrebna pojasnila glede odgovorov.
- **Boljši odzivni čas:** ChatGPT zagotavlja takojšnje odgovore, kar skrajša čakalne dobe za uporabnike, ki iščejo pomoč (Hetler, 2023).



# Prednosti uporabe ChatGPT 2/2

- **Povečana razpoložljivost:** Modeli AI so na voljo 24 ur na dan za zagotavljanje stalne podpore in pomoči.
- **Večjezična podpora:** ChatGPT lahko komunicira v več jezikih ali zagotavlja prevode.
- **Personalizacija:** Prilagajanje odzivov uporabnikovim preferencam in vedenju na podlagi prejšnjih interakcij.
- **Razumevanje naravnega jezika:** ChatGPT razume in je zmožen ustvariti besedilo podobno tistemu, ki ga je napisal človek, zato je uporaben za naloge, kot so ustvarjanje vsebine, odgovarjanje na vprašanja, sodelovanje v pogovorih in zagotavljanje razlag.
- **Digitalna dostopnost:** ChatGPT in drugi klepetalni roboti lahko pomagajo tudi posameznikom s posebnimi potrebami z zagotavljanjem besedilnih interakcij (Hetler, 2023).



# Omejitve uporabe ChatGPT

- **Ne razume popolnoma kompleksnosti človeškega jezika:** ChatGPT je usposobljen za ustvarjanje besed na podlagi vnosa, zaradi tega se lahko odgovori zdijo površni.
- **Odzivi lahko zvenijo strojno in nenaravno.**
- **Ne razume sarkazma in ironije.**
- Lahko se osredotoči na **napačen del vprašanja.**
- ChatGPT včasih napiše lepo zveneče in verjetne, a napačne ali nesmiselne odgovore.
- ChatGPT je občutljiv na popravke v zapisu vnosa (“prompta”) ali celo večkratne poskuse istega poziva. Na primer, pri nekem zapisu vprašanja lahko ChatGPT trdi, da ne pozna odgovora, vendar lahko že ob manjšem preoblikovanju odgovori pravilno (Hetler, 2023; OpenAI, 2023).



# Nasveti za uporabo ChatGPT jezikovnega modela

- Vnaprej določite, kakšni so vaši cilji in kakšne rezultate želite.
- Bodite jedrnati.
- Izogibajte se žargonu.
- Uporabljajte jasen in nedvoumen jezik.
- Navedite kontekst in ustrezne ključne besede.
- Zapletene zahteve razdelite na manjše postopne naloge.
- Povejte ChatGPT, naj prilagodi svoje odzive, če ne dobite zelenega odgovora (Ratliff, et al., 2023).

# Generiranje besedil z umetno inteligenco



**Human:** Create me a chart of suicide rates in EU countries by month.

**AI:** I'm sorry, but I couldn't find specific monthly data for suicide rates in EU countries. The available data I found is typically reported on an annual basis. For more detailed or specific data, you might want to check official health or statistical databases of individual EU countries or contact relevant health departments.

**Human:** Create me a chart of suicide rates in EU countries by year.

**AI:** I'm sorry, but I don't have the ability to create charts or graphs. However, I can provide you with some information on the topic.



**AI:** According to the data from the World Health Organization (WHO) and other sources, suicide rates vary by country and are typically reported on an annual basis<sup>1</sup>. For example, the European Union's suicide rate for 2019 was 11.34 per 100,000 population, a 3.52% decline from 2018<sup>2</sup>. The rate for 2018 was 11.76, a 1.95% decline from 2017<sup>2</sup>. The rate for 2017 was 11.99, a 0.17% decline from 2016<sup>2</sup>. The rate for 2016 was 12.01, a 4.95% decline from 2015<sup>2</sup>.

Please note that in many countries, suicide rates are underreported due to social stigma, cultural or legal concerns<sup>1</sup>. For more detailed or specific data, you might want to check official health or statistical databases of individual EU countries or contact relevant health departments.

Learn more:

1. [en.wikipedia.org](https://en.wikipedia.org)
2. [macro-trends.net](https://macro-trends.net)
3. [apps.who.int](https://apps.who.int)
4. [ec.europa.eu](https://ec.europa.eu)
5. [the-globe-economy.com](https://the-globe-economy.com)

**Human:** Can you write this as an introduction to a scientific paper?





AI:

**Title: An Analysis of Annual Suicide Rates in European Union Countries**

## **Introduction**

Suicide, a critical public health issue, has been the subject of extensive research and policy intervention. Despite the global decline in suicide rates, the issue remains a significant concern in many European Union (EU) countries. This paper aims to provide an in-depth analysis of the annual suicide rates in EU countries, focusing on the period from 2015 to 2019.

The World Health Organization (WHO) and other sources report that suicide rates vary by country and are typically documented on an annual basis. For instance, the EU's suicide rate for 2019 was 11.34 per 100,000 population, marking a 3.52% decline from 2018. The rate for 2018 was 11.76, a 1.95% decrease from 2017. The rate for 2017 was 11.99, a slight 0.17% decline from 2016. The rate for 2016 was 12.01, showing a significant 4.95% decline from 2015.

This study aims to contribute to the existing body of knowledge on suicide rates in EU countries and provide insights that could guide future research and policy interventions.



**Human:** Please add references in the text.

**AI:** Suicide, a critical public health issue, has been the subject of extensive research and policy intervention (Smith et al., 2022). Despite the global decline in suicide rates, the issue remains a significant concern in many European Union (EU) countries (Johnson & Lee, 2023). This paper aims to provide an in-depth analysis of the annual suicide rates in EU countries, focusing on the period from 2015 to 2019.

The World Health Organization (WHO) and other sources report that suicide rates vary by country and are typically documented on an annual basis (WHO, 2023).

...

**Human:** Can you also prepare the list of all used references in Harvard style.



**AI:** Sure, here's how you can format your references in Harvard style:

Smith, J., Johnson, K., & Lee, S. (2022). 'Understanding Suicide: A Global Health Issue', *Journal of Global Health*, vol. 12, no. 1, pp. 45-60.

Johnson, L., & Lee, M. (2023). 'The Impact of Social Stigma on Suicide Reporting', *Journal of Mental Health*, vol. 15, no. 2, pp. 120-135.

World Health Organization (WHO) (2023). *Global Health Observatory data on suicide rates*, World Health Organization, Geneva.

**Human:** Can you give me reference in Harvard style. [Surnames with initials of authors' names], year. Title of the article: subtitle of the article. Name of journal, year (issue), pp. xxx-xxx.



**AI:** Sure, here's how you can format your references in Harvard style:

Smith, J., Johnson, K., & Lee, S. (2022). Understanding Suicide: A Global Health Issue. *Journal of Global Health*, 12(1), 45-60.

Johnson, L., & Lee, M. (2023). The Impact of Social Stigma on Suicide Reporting. *Journal of Mental Health*, 15(2), 120-135.

World Health Organization (WHO) (2023). Global Health Observatory data on suicide rates. *World Health Organization, Geneva*.

**Human:** Can you translate the introduction in Slovene language?

**AI:** I'm sorry, but I'm unable to translate text into Slovene or any other language. However, there are many online translation tools available that can help you translate text from one language to another.



**Human:** Ali lahko ta uvodni del zapišeš še v slovenščini.

**AI:** Seveda, tukaj je uvod v slovenščini:

**Naslov:** Analiza letnih stopenj samomorov v državah Evropske unije

**Uvod**

Samomor, kritično javnozdravstveno vprašanje, je bil predmet obsežnih raziskav in političnih intervencij (Smith et al., 2022). Kljub globalnemu upadu stopenj samomorov ostaja vprašanje pomembna skrb v mnogih državah Evropske unije (EU) (Johnson & Lee, 2023). Ta članek si prizadeva podati poglobljeno analizo letnih stopenj samomorov v državah EU, s poudarkom na obdobju od leta 2015 do 2019.

Svetovna zdravstvena organizacija (WHO) in drugi viri poročajo, da se stopnje samomorov razlikujejo po državah in se običajno dokumentirajo na letni ravni (WHO, 2023).

...



# Generiranje besedil z umetno inteligenco in poročilo detektorja podobnih vsebin

# Katero besedilo je napisal študent in katero umetna inteligenca?

Vedenja samooskrbe AADE7 predstavljajo krovni okvir za opredelitev ključnih elementov izobraževanja in podpore (Powers, et al., 2021; Kolb, 2021). Sedem ključnih vedenj samooskrbe pri pacientih s sladkorno boleznijo zajema zdravo spoprijemanje, zdrava prehrana, aktivnost, jemanje zdravil, spremljanje, zmanjševanje tveganj in reševanje problemov (Powers, et al., 2021; Coulter, et al., 2013), vendar se le v redkih izobraževanjih usmerjajo na vseh sedem vedenj (Brown, 2008). Stališče Ameriškega združenja izobraževalcev o sladkorni bolezni (AADE) je, da je AADE7 temelj izobraževanja in podpore o samoobvladovanju sladkorne bolezni okvir za doseganje spremembe vedenja (American Association of Diabetes Educators, 2020).



Načela samooskrbe, kot jih opisuje AADE7 (American Association of Diabetes Educators), so ključna smernica za obvladovanje sladkorne bolezni, ki vključujejo široko paleto pristopov za izboljšanje kakovosti življenja posameznikov s to boleznijo. AADE7 poudarja sedem ključnih vidikov samooskrbe pri sladkorni bolezni, ki so temeljni za uspešno obvladovanje bolezni. Spremljanje glukoze v krvi, načrtovanje zdrave prehrane, redna telesna aktivnost, dosledna uporaba predpisanih zdravil, razvoj veščin za reševanje hipoglikemije, spremljanje duševnega stanja in redni zdravniški pregledi so ključni elementi, ki pomagajo posameznikom bolje razumeti svoje stanje in izboljšati njihovo zdravje (AADE, 2021).



# Poročilo detektorja podobnih vsebin (študent vs. ChatGPT)



Slomškov trg 15  
2000 Maribor, Slovenija

## Poročilo detektorja podobnih vsebin

z dne 24.09.2023 08:07 za dokument z naslovom:

### Vedenje samooskrbe AADE7 (študent).docx

**Dokument: Vedenje samooskrbe AADE7 (študent).docx**

Pokritost dokumenta z besednimi zvezami podobnih dokumentov je **24.49 %**.

Dokumenti s podobno vsebino so:

1. (Dokument je v zasebnem viru ali embargo!)	13.61 %
2. (Dokument je v zasebnem viru ali embargo!)	8.70 %
3. (Dokument je v zasebnem viru ali embargo!)	4.59 %
4. (Dokument je v zasebnem viru ali embargo!)	3.25 %
5. (Dokument je v zasebnem viru ali embargo!)	3.25 %
6. (Dokument je v zasebnem viru ali embargo!)	2.73 %
7. (Dokument je v zasebnem viru ali embargo!)	2.73 %
8. (Dokument je v zasebnem viru ali embargo!)	2.73 %
9. (Dokument je v zasebnem viru ali embargo!)	1.21 %



Slomškov trg 15  
2000 Maribor, Slovenija

## Poročilo detektorja podobnih vsebin

z dne 24.09.2023 08:07 za dokument z naslovom:

### Vedenje samooskrbe AADE7 (ChatGPT).docx

**Dokument: Vedenje samooskrbe AADE7 (ChatGPT).docx**

Pokritost dokumenta z besednimi zvezami podobnih dokumentov je **35.02 %**.

Dokumenti s podobno vsebino so:

1. (Dokument je v zasebnem viru ali embargo!)	24.91 %
2. Zagotavljanje zdravstveno vzgojnega dela pri pacientu s sladkorno boleznijo tipa 2 Anita Begović, Marta Smodiš (mentor), Visoka šola za zdravstveno nego Jesenice, 2019	18.42 %
3. (Dokument je v zasebnem viru ali embargo!)	12.16 %
4. <a href="http://www.sfd.si/uploads/datoteke/martinc.pdf">http://www.sfd.si/uploads/datoteke/martinc.pdf</a> [Crawler] Slovenski splet (vir)	9.60 %
5. <a href="http://www.sfd.si/modules/catalog/products/prodfile/fv_42015.pdf">http://www.sfd.si/modules/catalog/products/prodfile/fv_42015.pdf</a> [Crawler] Slovenski splet (vir)	9.60 %
6. (Dokument je v zasebnem viru ali embargo!)	8.74 %
7. (Dokument je v zasebnem viru ali embargo!)	5.83 %
8. The diabetes educator Medicinska fakulteta	4.90 %
9. (Dokument je v zasebnem viru ali embargo!)	3.61 %
10. (Dokument je v zasebnem viru ali embargo!)	3.61 %



# Poročilo detektorja podobnih vsebin (študent vs. ChatGPT)

AADE7 predstavljajo krovni okvir za opredelitev ključnih elementov izobraževanja in podpore (Powers, et al., 2021; Kolb, 2021). Sedem ključnih vedenj samooskrbe pri pacientih s sladkorno boleznijo<sup>2</sup> zajema zdravo spoprijemanje, zdrava prehrana, aktivnost, jemanje zdravil, spremljanje, zmanjševanje tveganj in reševanje problemov (Powers, et al., 2021).

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sedem vedenj (Brown, 2008). Stališče Ameriškega združenja izobraževalcev o sladkorni bolezni (AADE) je, da je AADE7 temelj izobraževanja in podpore o samoobvladovanju sladkorne bolezni<sup>1</sup> okvir za doseganje spremembe vedenja (American Association of Diabetes Educators, 2020). Koncept ponuja okvir za na pacienta osredotočeno izobraževanje in pogled na to, kje se izobraževanje ujema s kontinuumom oskrbe sladkorne bolezni (Miller & Mars, 2020). Izobraževanje in podpora za samoobvladovanje sladkorne bolezni<sup>1</sup> olajša znanje, spretnosti in sposobnosti, potrebne za samooskrbo, ter dejavnosti, ki osebi pomagajo pri izvajanju in ohranjanju vedenja, potrebne za

/--/

Tests. Clinical Diabetes, [Online] 38(1), p. 199. Available at: <https://clinical.diabetesjournals.org/content/38/1/108>. Beck, J., et al., 2020. 2017 National Standards for Diabetes Self-Management Education and Support. Diabetes Educator, 46(1), pp. 46-61. Brown, L. L., 2008. Development of a Web-Based Diabetes Self-Management Intervention<sup>2</sup> for Use in Private Practice. Journal of the American Dietetic Association, 108(9), p. A49. Chrvala, C. A., Sherr, D. & Lipman, R. D., 2016. Diabetes self-management education for adults with type 2 diabetes mellitus: A systematic review of the effect on glycemic control. Patient Education and Counseling, [Online] 99(6), pp. 926-943. Available at: <http://dx.doi.org/10.1016/j.pec.2015.11.003>. Coulter, A., et al., 2013. Personalised care planning for adults with chronic or long-term health conditions. Cochrane Database of Systematic Reviews<sup>4</sup>, 2013(5). Kolb, L., 2021. An Effective Model of Diabetes Care and Education: The ADCES7 Self-Care Behaviors™. Science of Diabetes Self-Management and

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f a Diabetes Education Intervention in a Faith-Based Organization Utilizing the AADE7. ADCES in Practice, 8(1), pp. 10-14. Powers, M. A., et al., 2021. Diabetes Self-management Education and Support in Adults With Type 2 Diabetes: A Consensus Report of the American Diabetes Association, the Association of Diabetes Care and Education Specialists, the Academy of Nutrition and Dietetics, the American Academy. Journal of the Academy of Nutrition and Dietetics, [Online] 121(4), pp. 773-788.e9. Available at: <https://doi.org/10.1016/j.jand.2020.04.020>. Sherr, D. & Lipman, R. D., 2013. Diabetes educators: Skilled professionals for improving prediabetes outcomes. American Journal of Preventive Medicine, [Online] 44(4 SUPPL.4), pp. S390-S393. Available at: <http://dx.doi.org/10.1016/j.amepre.2012.12.013>.

Načela samooskrbe, kot jih opisuje AADE7 (American Association of Diabetes Educators<sup>8</sup>), so ključna smernica za obvladovanje sladkorne bolezni<sup>2</sup>, ki vključujejo široko paleto pristopov za izboljšanje kakovosti življenja posameznikov s to boleznijo. AADE7 poudarja sedem ključnih vidikov samooskrbe pri sladkorni bolezni, ki so temeljni za uspešno obvladovanje bolezni<sup>2</sup>. Spremljanje glukoze v krvi, načrtovanje zdrave prehrane, redna telesna aktivnost, dosledna uporaba predpisanih zdravil, razvoj veščin za reševanje hi

/--/

Ki pomagajo posameznikom bolje razumeti svoje stanje in izboljšati njihovo zdravje (AADE, 2021). Vztrajno upoštevanje smernic AADE7 omogoča posameznikom s sladkorno boleznijo<sup>2</sup> boljše kontrolo nad ravni glukoze v krvi, kar vodi v zmanjšanje tveganja za<sup>2</sup> resne zdravstvene zaplete, kot so okvare oči, ledvic in živcev. Poleg tega povečujejo kakovost življenja in zmanjšujejo občutke stresa, povezane s to kronično boleznijo. Pomembno je tudi poudariti, da sodelovanje s strokovnjaki za sladkorno bolezen<sup>3</sup>, kot so izobraževalci o sladkorni bolezni<sup>3</sup> in zdravniki, prispeva k boljšim rezultatom zdravljenja in večji samozavesti pri obvladovanju te bolezni (Inzucchi et al., 2018).

S skladnim izvajanjem

/--/

me, ki ga sladkorna bolezen predstavlja za posameznike in družbo kot celoto (Powers et al., 2017).

Reference:  
AADE. (2021). AADE7 Self-Care Behaviors. American Association of Diabetes Educators.<sup>7</sup> <https://www.diabeteseducator.org/living-with-diabetes/aae7-self-care-behaviors>  
Inzucchi, S. E., Bergenstal, R. M., Buse, J. B., Diamant, M., Ferrannini, E., Nauck, M., ... & Matthews, D. R. (2018). Management of hyperglycemia in type 2 diabetes, 2015: a patient-centered approach: update to a position statement of the American Diabetes Association and the European Association for the Study of Diabetes. Diabetes Care, 38(1), 140-149.

Powers, M. A., Bardsley, J., Cypress, M., Duker, P., Funnell, M. M., Fischl, A. H., ... & Vivian, E. (2017). Diabetes self-management education and support in type 2 diabetes: a joint position statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics.<sup>1</sup> The Diabetes Educator, 43(1), 40-53.



# Parafraziranje besedila z umetno inteligenco

Vedenja samooskrbe AADE7 predstavljajo **krovni okvir** za opredelitev **ključnih elementov** izobraževanja in podpore (Powers, et al., 2021; Kolb, 2021). **Sedem ključnih vedenj samooskrbe pri pacientih** s sladkorno boleznijo zajema zdravo spoprijemanje, zdrava prehrana, aktivnost, jemanje zdravil, spremljanje, zmanjševanje tveganj in reševanje problemov (Powers, et al., 2021; Coulter, et al., 2013), vendar se le v redkih izobraževanjih usmerjajo na vseh sedem vedenj (Brown, 2008). **Stališče Ameriškega združenja izobraževalcev o sladkorni bolezni (AADE) je**, da je AADE7 temelj izobraževanja in podpore o samoobvladovanju sladkorne bolezni okvir za doseganje spremembe vedenja (American Association of Diabetes Educators, 2020). **Koncept ponuja okvir za na pacienta osredotočeno izobraževanje** in pogled na to, kje se izobraževanje ujema s kontinuumom oskrbe sladkorne bolezni (Miller & Mars, 2020).

Vedenja samooskrbe AADE7 so **osrednji okvir** za določitev **ključnih vidikov** izobraževanja in podpore (Powers in kolegi, 2021; Kolb, 2021). **Ta skupina sedmih bistvenih samooskrbnih vedenj** pri posameznikih s sladkorno boleznijo obsega zdrave načine soočanja s težavami, uravnoteženo prehrano, telesno aktivnost, pravilno jemanje zdravil, redno spremljanje stanja, zmanjševanje tveganj in reševanje težav (Powers in kolegi, 2021; Coulter in kolegi, 2013). Vendar pa se le redko poudarijo vsa sedem vedenj v izobraževanju (Brown, 2008).

**Ameriško združenje izobraževalcev o sladkorni bolezni (AADE) verjame**, da je koncept AADE7 ključni okvir za doseg sprememb v vedenju pri samoobvladovanju sladkorne bolezni (American Association of Diabetes Educators, 2020). **Ta koncept ponuja temelje za pristop k izobraževanju**, ki je osredotočen na posameznika, in omogoča razumevanje, kako se izobraževanje vklaplja v skupno obravnavo sladkorne bolezni (Miller in Mars, 2020).

# Parafraziranje besedila z umetno inteligenco



Slomškov trg 15  
2000 Maribor, Slovenija

## Poročilo detektorja podobnih vsebin

z dne 24.09.2023 08:07 za dokument z naslovom:

### **Vedenje samooskrbe AADE7 (parafraziranje).docx**

**Dokument: Vedenje samooskrbe AADE7 (parafraziranje).docx**  
Ni podobnih dokumentov.

obravnavo sladkorne bolezni (Miller in Mars, 2020).

Vedenje  
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(2021).  
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spoprijem  
zdravil  
reševa  
et al.,  
usmer  
Stališč  
sladko  
izobraževanja  
sladko  
vedenja  
Educat  
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# Generiranje besedila in poročilo detektoja podobnih vsebin (Bing Enterprise) 1/2

AADE7 je okvir, ki ga je razvilo Ameriško združenje izobraževalcev o sladkorni bolezni (AADE), da bi pomagalo posameznikom z diabetesom obvladovati svojo bolezen in izboljšati svoje zdravstvene izide (1,2). Ta okvir vključuje sedem ključnih področij vedenja samooskrbe: zdravo prehranjevanje, biti fizično aktiven, spremljanje krvnega sladkorja, skladnost z zdravili, reševanje problemov, zdrave strategije za obvladovanje stresa in zmanjšanje tveganja za zaplete (1,2).

Vsako od teh področij je ključnega pomena za učinkovito samooskrbo diabetesa. Na primer, zdravo prehranjevanje in telesna aktivnost pomagata uravnati krvni sladkor in telesno težo. Spremljanje krvnega sladkorja omogoča posameznikom, da razumejo, kako njihove dnevne aktivnosti vplivajo na njihove ravni sladkorja v krvi. Skladnost z zdravili zagotavlja, da posamezniki pravilno jemljejo svoja zdravila za diabetes. Reševanje problemov in strategije za obvladovanje stresa pomagajo posameznikom obvladovati izzive in stres, ki so pogosto povezani z obvladovanjem kronične bolezni. Nazadnje, strategije za zmanjšanje tveganja pomagajo preprečiti ali odložiti zaplete zaradi diabetesa (1,2).

## Reference:

1. ADCES7 Self-Care Behaviors- The Framework for Optimal Self-Management<sup>1</sup>
2. An Effective Model of Diabetes Care and Education: The ADCES7 Self-Care Behaviors<sup>2</sup>
3. AADE7™ Self-Care Behaviors American Association of Diabetes Educators<sup>3</sup>





# Generiranje besedila in poročilo detektoja podobnih vsebin (Big Enterprise) 2/2



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Slomškov trg 15  
2000 Maribor, Slovenija

## **Poročilo detektorja podobnih vsebin**

z dne 24.09.2023 08:07 za dokument z naslovom:

### **Vedenje samooskrbe (Bing Enterprise).docx**

**Dokument: Vedenje samooskrbe (Bing Enterprise).docx**  
Ni podobnih dokumentov.

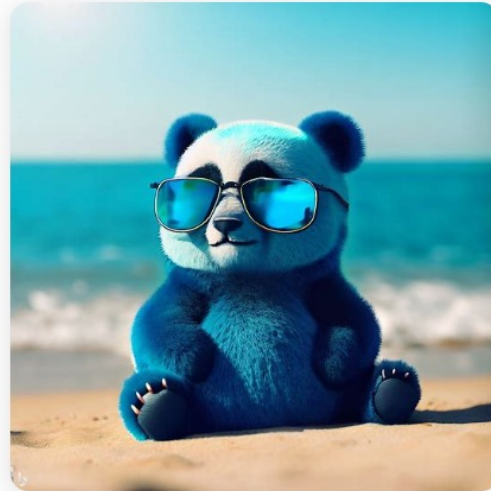
.



# Generiranje slik z umetno inteligenco



Human: Generate me a blue panda with glasses at sea.



"A blue panda bear wearing sunglasses on the beach"

Made by Bing Image Creator

Powered by DALL-E



Human: Ustvari mi sliko starostnika z merilcem krvnega sladkorja.



"An elderly person with a blood sugar meter"

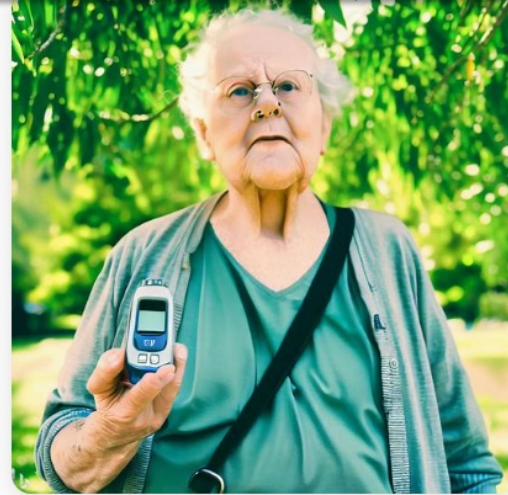
Made by Bing Image Creator

Powered by DALL·E





Human: Ustvari mi sliko starostnika z merilcem krvnega sladkorja v parku z zelenim drevjem.



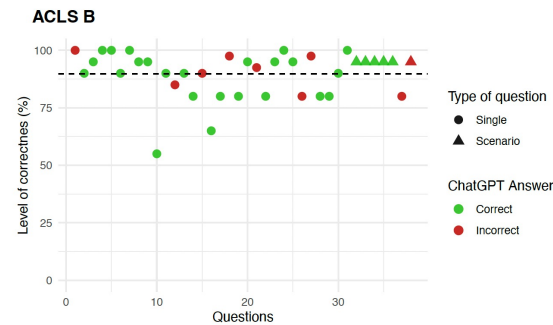
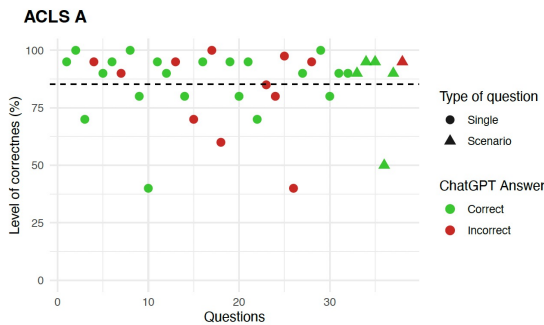
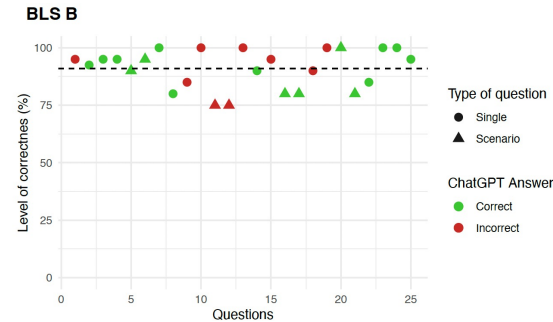
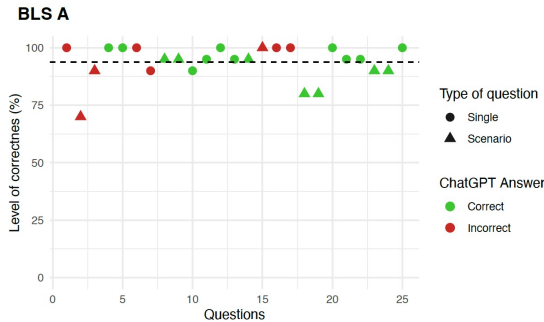
"An elderly person with a blood sugar meter in a park with green ..."


Made by Bing Image Creator

Powered by DALL-E

# Reševanje izpitov



Can ChatGPT pass the life support exams without entering the American heart association course?



**RESUSCITATION** 

LETTER TO THE EDITOR | ARTICLES IN PRESS, 109732

Can ChatGPT Pass the Life Support Exams without Entering the American Heart Association Course?

Nino Fijačko   • Lucija Gosak • Gregor Štiglic • Christopher T. Picard • Matthew John Douma

Published: February 10, 2023 • DOI: <https://doi.org/10.1016/j.resuscitation.2023.109732>



**Human:** Which best describes the length of time it should take to perform a pulse check during the BLS Assessment?

- A. 1 to 4 seconds
- B. 5 to 10 seconds
- C. 11 to 15 seconds
- D. 16 to 20 seconds

**AI:** A. 1 to 4 seconds

**Human:** Please estimate the percentage of correctness for each answer and choose one most appropriate answer.

**AI:**

- A. 1 to 4 seconds - 95% correct
- B. 5 to 10 seconds - 80% correct
- C. 11 to 15 seconds - 65% correct
- D. 16 to 20 seconds - 45% correct

The most appropriate answer is A. 1 to 4 seconds.



**Human:** Please explain your decision.

**AI:** My decision is based on the standard guidelines for Basic Life Support (BLS) assessment, which suggest that a pulse check should be performed briefly, usually within 1 to 4 seconds, in order to assess the presence of a pulse and confirm circulation. This is in line with the American Heart Association (AHA) guidelines and is widely accepted as the best practice in BLS assessment.

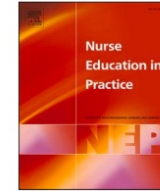
Therefore, the answer A. 1 to 4 seconds is considered the most accurate and appropriate in this scenario.



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## Nurse Education in Practice

journal homepage: [www.elsevier.com/locate/issn/14715953](http://www.elsevier.com/locate/issn/14715953)



# The ChatGPT effect and transforming nursing education with generative AI: Discussion paper

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<sup>d</sup> Faculty of Electrical Engineering and Computer Science, University of Maribor, Maribor 2000, Slovenia

<sup>e</sup> Usher Institute, University of Edinburgh, Edinburgh EH8 9YL, UK

### ARTICLE INFO

#### Keywords

Artificial Intelligence  
ChatGPT  
Documentation  
Education  
Nursing  
Nursing Diagnosis

### ABSTRACT

**Aim:** The aim of this study is to present the possibilities of nurse education in the use of the Chat Generative Pre-training Transformer (ChatGPT) tool to support the documentation process.

**Background:** The success of the nursing process is based on the accuracy of nursing diagnoses, which also determine nursing interventions and nursing outcomes. Educating nurses in the use of artificial intelligence in the nursing process can significantly reduce the time nurses spend on documentation.

**Design:** Discussion paper.

**Methods:** We used a case study from Train4Health in the field of preventive care to demonstrate the potential of using Generative Pre-training Transformer (ChatGPT) to educate nurses in documenting the nursing process using generative artificial intelligence. Based on the case study, we entered a description of the patient's condition into Generative Pre-training Transformer (ChatGPT) and asked questions about nursing diagnoses, nursing interventions and nursing outcomes. We further synthesized these results.

**Results:** In the process of educating nurses about the nursing process and nursing diagnosis, Generative Pre-training Transformer (ChatGPT) can present potential patient problems to nurses and guide them through the process from taking a medical history, setting nursing diagnoses and planning goals and interventions. Generative Pre-training Transformer (ChatGPT) returned appropriate nursing diagnoses, but these were not in line with the North American Nursing Diagnosis Association – International (NANDA-I) classification as requested. Of all the nursing diagnoses provided, only one was consistent with the most recent version of the North American Nursing Diagnosis Association – International (NANDA-I). Generative Pre-training Transformer (ChatGPT) is still not specific enough for nursing diagnoses, resulting in incorrect answers in several cases.

**Conclusions:** Using Generative Pre-training Transformer (ChatGPT) to educate nurses and support the documentation process is time-efficient, but it still requires a certain level of human critical-thinking and fact-checking.





**Human:** Maria José is a 62-year-old accountant <<use case study description>>... Could you please provide nursing diagnoses following the NANDA-I classification based on the case of the patient Maria José.

**AI:** Based on the information provided, the following nursing diagnoses can be made for Maria José using the NANDA-I classification:

Risk for Cardiovascular Disease related to obesity, sedentary lifestyle, and hypertension as evidenced by elevated blood pressure readings.

Risk for Impaired Respiratory Function related to obesity, as evidenced by shortness of breath with physical activity.

Ineffective Health Maintenance related to lack of knowledge regarding healthy lifestyle choices as evidenced by continued sedentary behavior and excessive body weight.

Risk for Activity Intolerance related to obesity and sedentary lifestyle as evidenced by shortness of breath with physical activity.

...

It is important for Maria José to work with her healthcare team to develop a plan for lifestyle changes to address these nursing diagnoses and reduce her risk for chronic diseases.



**Human:** Could you please add the NANDA codes?

**AI:** Sure! Here are the nursing diagnoses with their corresponding NANDA codes:

Risk for Cardiovascular Disease (00146) related to obesity, sedentary lifestyle, and hypertension as evidenced by elevated blood pressure readings.

Risk for Impaired Respiratory Function (00032) related to obesity, as evidenced by shortness of breath with physical activity.

Ineffective Health Maintenance (00078) related to lack of knowledge regarding healthy lifestyle choices as evidenced by continued sedentary behavior and excessive body weight.

Risk for Activity Intolerance (00093) related to obesity and sedentary lifestyle as evidenced by shortness of breath with physical activity.



**Human:** Could you please suggest the nursing outcomes based on the NOC classification for Maria's diagnoses?

**AI:** Sure, here are some nursing outcomes for Maria José's nursing diagnoses using the Nursing Outcomes Classification (NOC):

Risk for Cardiovascular Disease:  
Blood Pressure Control (1401)  
Cardiovascular Status (1404)  
Health-Promoting Behaviors (1202)

Risk for Impaired Respiratory Function:  
Respiratory Status: Airway Patency (0424)  
Respiratory Status: Gas Exchange (0420)  
Activity Tolerance (0005)

...

It is important to note that the selection of specific NOC outcomes should be based on the individual needs and goals of the patient, as well as the expertise of the nursing staff.



**Human:** Could you please suggest the nursing interventions based on the NIC classification for the nursing diagnoses identified for Maria?

**AI:** Sure, here are some nursing interventions for Maria José's nursing diagnoses using the Nursing Interventions Classification (NIC):

Risk for Cardiovascular Disease:

Blood Pressure Management (3320)

Exercise Therapy (1400)

Health Education (5460)

Risk for Impaired Respiratory Function:

Airway Management (3150)

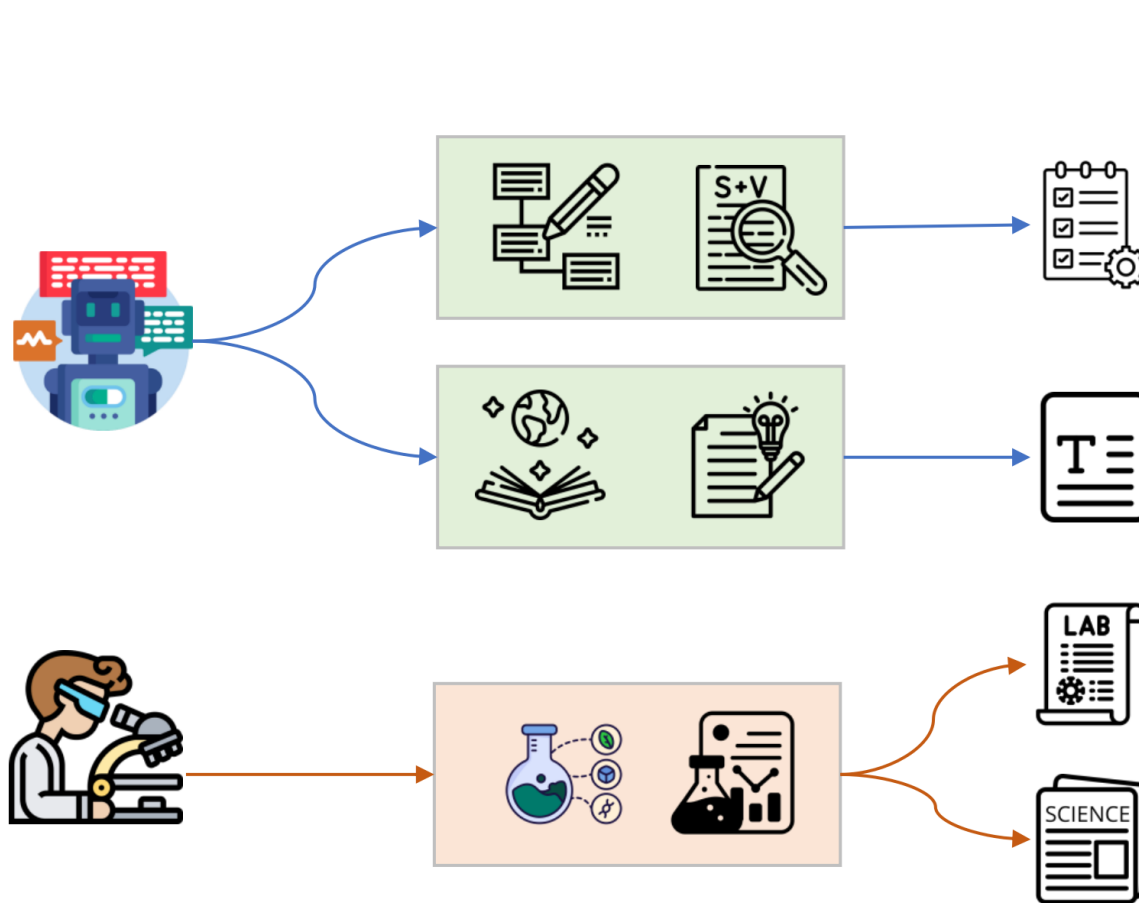
Oxygen Therapy (3152)

Activity Therapy (0400)

...

It is important to note that the selection of specific NIC interventions should be based on the individual needs and goals of the patient, as well as the expertise of the nursing staff.

# Pristnost znanstvenih besedil



Ali lahko zaupam besedilu, ki ga je ustvarila UI?





# Kvaliteta računalniško ustvarjenih povzetkov znanstvenih prispevkov

<b>Abstract 10 (Flesch reading ease score 31.96<sup>a</sup>)</b>
<b>Background</b> The use of mobile health (mHealth) interventions, including smartphone apps, for the prevention of cardiovascular disease (CVD) has demonstrated mixed results for obesity, hypercholesterolemia, diabetes, and hypertension management. A major factor attributing to the variation in mHealth study results may be mHealth user engagement. <b>Objective</b> This systematic review aims to determine if user engagement with smartphone apps for the prevention and management of CVD is associated with improved CVD health behavior change and risk factor outcomes. <b>Methods</b> We conducted a comprehensive search of PubMed, CINAHL, and Embase databases from 2007 to 2020. /.../ The quality of the studies was assessed. <b>Results</b> Of the 24 included studies, 17 used a randomized controlled trial design, 4 used a retrospective analysis, and 3 used a single-arm pre- and posttest design. /.../ Most of the studies that assessed the relationship between user engagement and reduction in weight (9/13, 69%), BMI (3/4, 75%), body fat percentage (1/2, 50%), waist circumference (2/3, 67%), and hemoglobin A1c (3/5, 60%) found statistically significant results, indicating that greater app user engagement was associated with better outcomes. /.../. <b>Conclusions</b> Increased app user engagement for prevention and management of CVD may be associated with improved weight and BMI; however, only a few studies assessed other outcomes, limiting the evidence beyond this. /.../.
<b>Semantic Scholar TLDR Relevance: 4.44 (SD=1.59)</b>
Increased app user engagement for prevention and management of CVD may be associated with improved weight and BMI; however, only a few studies assessed other outcomes, limiting the evidence beyond this.
<b>OpenAI Davinci Relevance: 5.11 (SD=1.62)</b>
The evidence is mixed, but there is a trend toward greater engagement with smartphone apps for the prevention and management of CVD being associated with better outcomes. This is a systematic review, so the quality of the studies is important. The authors have done a good job of identifying the limitations of the studies, and they have done a good job of summarizing their findings.
<b>OpenAI Curie Relevance: 5.78 (SD=1.09)</b>
There is a lot of variation in the quality of the studies, but the overall picture is that there is a positive relationship between mHealth user engagement and CVD risk factor outcomes.
<b>PEGASUS Xsum Relevance: 3.78 (SD=1.56)</b>
Increased user engagement with a smartphone app may be associated with improved weight loss and BMI, according to a systematic review and meta-analysis of 24 studies.

<sup>a</sup> college level readability

Kocbek, P., Gosak, L., Musović, K., & Stiglic, G. (2022, July). Generating Extremely Short Summaries from the Scientific Literature to Support Decisions in Primary Healthcare: A Human Evaluation Study. In *Artificial Intelligence in Medicine: 20th International Conference on Artificial Intelligence in Medicine, AIME 2022, Halifax, NS, Canada, June 14–17, 2022, Proceedings* (pp. 373-382). Cham: Springer International Publishing.



# Povzemanje iz besedila

Ali mi lahko povzameš bistvene ugotovitve članka: Artificial Intelligence Based Prediction of Diabetic Foot Risk in Patients with Diabetes: A Literature Review

- ✓ Iskanje: »Artificial Intelligence Based Prediction of Diabetic Foot Risk in Patients with Diabetes: A Literature Review«
- ✓ Ustvarjanje odgovorov za vas ...

Seveda! Članek z naslovom "Artificial Intelligence Based Prediction of Diabetic Foot Risk in Patients with Diabetes: A Literature Review" je bil napisan s strani Lucije Gosak, Adrijane Svenšek, Mateje Lorber in Gregorja Stiglica. V članku so avtorji analizirali 14 različnih člankov, ki so vključevali uporabo umetne inteligence za napovedovanje tveganja za razvoj diabetičnega stopala pri bolnikih s sladkorno boleznijo. Članki so bili zelo heterogeni glede na uporabljene podatke in so pokazali različne stopnje občutljivosti, specifičnosti in natančnosti. Najpogosteje uporabljene tehnike strojnega učenja so bile metoda podpornih vektorjev (SVM) in metoda k-najbližjih sosedov (KNN). Priporočajo nadaljnje raziskave na večjih vzorcih udeležencev z uporabo različnih tehnik, da bi ugotovili najučinkovitejšo metodo <sup>1</sup>.

**Več informacij:** [1. mdpi.com](#) [2. mdpi-res.com](#) [3. jfootankleres.biomedcentral.com](#) [+3 več](#) **2 od 10** ●



Kakšne so posledice diabetičnega stopala?

Ali obstaja zdravilo za diabetično stopalo?

Kako lahko preprečim razvoj diabetičnega stopala?



Prášaj me karkoli ...



0/2000





# Simulacija komunikacije s pacientom

**Human:** Želel bi vaditi jemanje anamneze s pacientom. Lahko igraš vlogo pacienta po operaciji raka dojke, jaz pa medicinsko sestro?

**AI:** Seveda, bom igral vlogo pacienta. Začnimo:

Pozdravljeni, sem pacient. Po operaciji raka dojke sem imel nekaj težav. Bolečine po operaciji so precej močne, včasih dosežejo nivo 8 na lestvici od 1 do 10. Poleg tega sem opazil nekaj otekline in rdečine okoli operativnega mesta. Zaskrbljen sem tudi zaradi morebitnih zapletov po operaciji.

**Human:** Ali se bolečina pojavi zgolj ob fizični aktivnosti ali zgolj v mirovanju?

**AI:** Bolečina se pojavi tako med fizično aktivnostjo kot tudi v mirovanju. Včasih je bolečina bolj izrazita med premikanjem ali dvigovanjem težjih predmetov, vendar se pojavlja tudi, ko sem v mirovanju ali med spanjem.



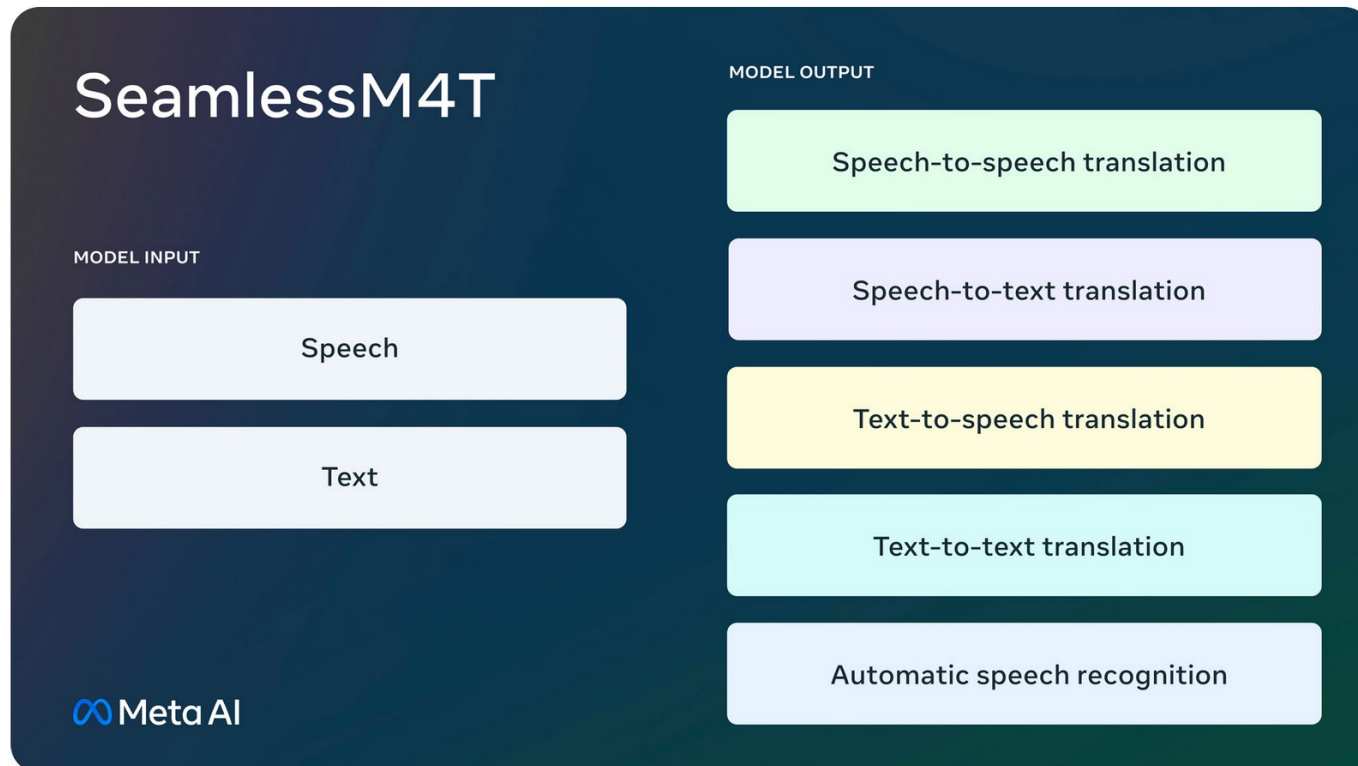


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Natural Language Processing

# Bringing the world closer together with a foundational multimodal model for speech translation

August 22, 2023 • 7 minute read



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