# Do We Really Need Another Session About Al?

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### Traditional vs Generative Al

The primary difference between Generative AI and Traditional AI lies in their objectives and functioning.

Traditional AI aims to perform specific tasks based on predefined rules and patterns.

Generative AI attempts to create entirely new data that resembles human-created content.

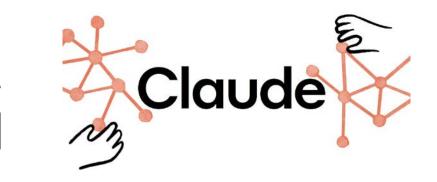


Large Language Models

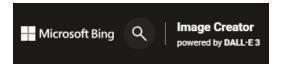








## Image Generating Models















Video Generation Models













# Integrated Products









### Recent Advances

Huge updates to all major engines

Enhanced data controls: share what you want, hide what you don't

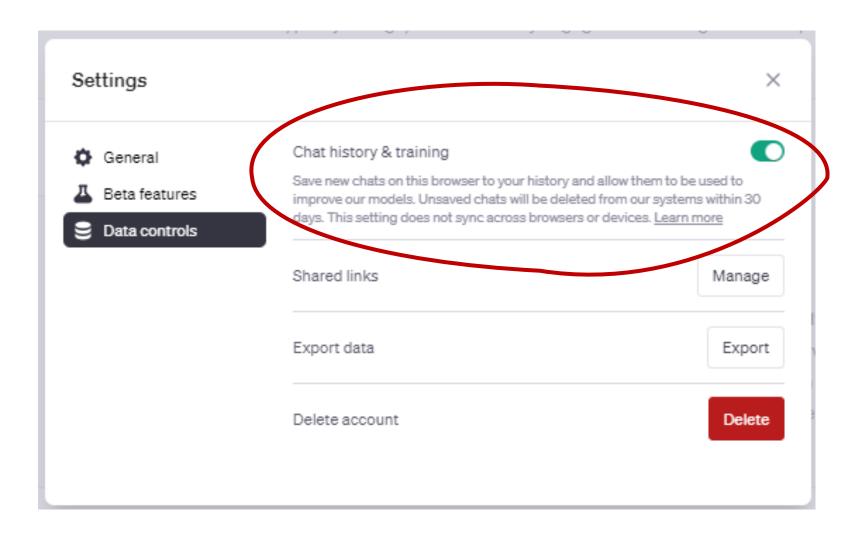
Live browsing, inline fact checking

Image recognition, analysis and generation integration

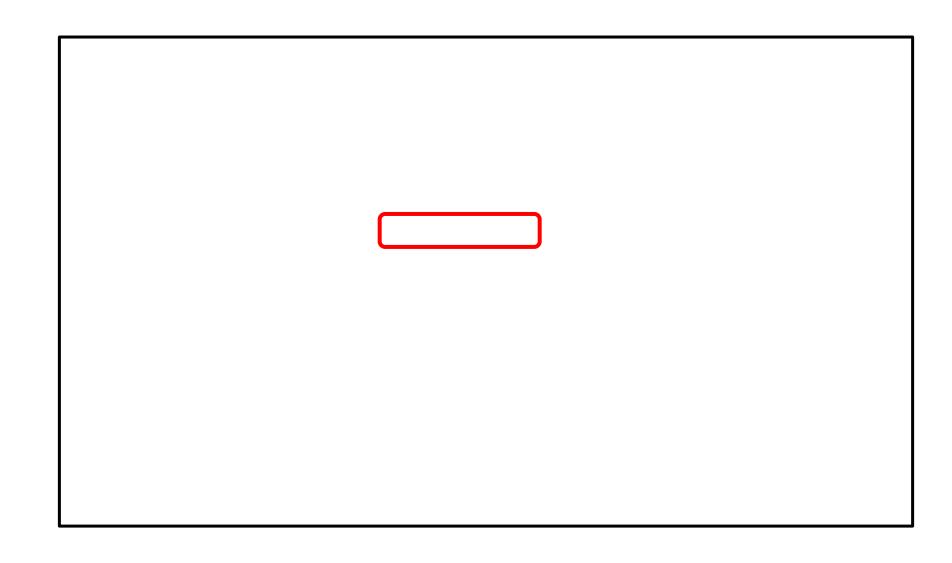
Working groups for application, ethics, responsible use

## Prompt Engineering

### Data Security



### Basic Needs Assessment Example



You are a public health expert. You're needing to design education to address serious public health challenges in North Philadelphia suburbs. But, first, you need to know the prevalence of those challenges. I need you to search the web and provide me the top three public health challenges in this area, and the prevalence of each. I also need citations



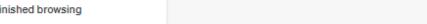
ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT September 25 Version

Browsing...
"top public health challenges in ...





Finished browsing



The top three public health challenges in the North Philadelphia suburbs include the overdose crisis, traffic-related fatalities, and the prevalence of Hepatitis B and C. Below is a detailed account of the prevalence of each challenge:

#### Overdose Crisis:

 In 2021, Philadelphia recorded 1,276 fatalities due to unintentional overdoses, marking a 5% increase from the previous year. The city's street drug supply has become more potent and unpredictable, contributing to the crisis. Fentanyl has emerged as a common drug involved in fatal overdoses, often mixed with xylazine (an animal tranquilizer). Additionally, overdoses involving the combination of opioids and stimulants have also become more common. The crisis is notable in communities of color, particularly among Black Philadelphians aged 35-44. The overdose problem extends across different neighborhoods, including North Philadelphia suburbs with specific zip codes (19124, 19132, 19133, and 19144) experiencing sharp increases in unintentional fatal overdoses 1.

#### Traffic-Related Fatalities:

 Traffic fatalities have remained a concern with 124 deaths recorded in 2022, slightly up from 123 in 2021. Vulnerable road users like children and pedestrians are particularly at risk. Areas like North Philadelphia, Kensington, and parts of Center City have been identified as hotspots for pedestrian fatalities and injuries. In 2023, Philadelphia has recorded 102 traffic fatalities, including 45 pedestrians, 11 motorcyclists, eight bicyclists, and one e-scooter rider up to the point of data collection. Pedestrian fatalities accounted for 57 of the deaths in traffic accidents in 2022 2 3 4 5.

#### 3. Prevalence of Hepatitis B and C:

 Hepatitis is prevalent in almost every Philadelphia county zip code. An estimated 52,640 residents are living with chronic hepatitis C, and about 1.5% of residents (24.633) are believed to be diagnosed with chronic hepatitis B. In Philadelphia, as many as 2,700 people each year receive a diagnosis of hepatitis B or C. Close to 50,000 people in the city are estimated to be living with Hepatitis C. The city has recognized the need for enhanced attention and resources to prevent, diagnose, and treat Hepatitis B and C 678

what zip codes are considered northern philly suburbs



0 0 7



Finished browsing

The zip codes considered as North Philadelphia include: 19120, 19121, 19122, 19123, 19125, 19126, 19130, 19132, 19133, 19134, 19137, 19138, 19140, 19141, and 191501. However, these are not the suburbs, but areas within the city limits of Philadelphia. For suburban areas, the zip codes might differ and typically belong to towns or municipalities around the periphery of the city.

Regenerate

0 6 7



### How did Google Bard Do?





Top 3 public health challenges in the North Philadelphia suburbs and their prevalence:

#### 1. Obesity:

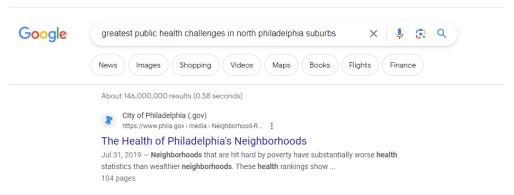
 Prevalence: 37.1% of adults in the North Philadelphia suburbs are obese. This is higher than the state average of 32.5% and the national average of 31.8%. (Source: 2022 Pennsylvania Health Trends Report, Pennsylvania Department of Health)

#### 2. Diabetes:

• Prevalence: 13.1% of adults in the North Philadelphia suburbs have diabetes. This is higher than the state average of 11.8% and the national average of 10.5%. (Source: 2022 Pennsylvania Health Trends Report, Pennsylvania Department of Health)

#### 3. Substance use:

 Prevalence: 10.6% of adults in the North Philadelphia suburbs report using illicit drugs in the past month. This is higher than the state average of 8.8% and the national average of 7.4%. (Source: 2022 National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration)



### Learning Objectives Help

You are a medical education expert and are well versed in behavioral verbs for effective learning objectives in the cognitive, affective and psychomotor domains. Using that information, rewrite the following objectives (delimited by ##) for an activity that will teach and measure learner competence. Only write four objectives, and do not change what the learner is expected to get from the presentation: ##Understand treatment of opiate addiction in pregnancy; ##Understand treatment of benzodiazepine addiction in pregnancy; ##Understand treatment of alcohol addiction in pregnancy; ##Understand treatment of nicotine addiction in pregnancy; ##Review consequences of substance abuse in pregnancy





Certainly! Effective learning objectives should be Specific, Measurable, Achievable, Relevant, and Time-bound (SMART). It's important to use behavioral verbs that are observable and measurable. Here are your revised objectives:

- Explain the protocols for treating opiate addiction in pregnant patients, using evidencebased practices.
- Illustrate the approaches for managing benzodiazepine addiction in pregnancy, adhering to current clinical guidelines.
- 3. Evaluate the effectiveness of different treatment modalities for alcohol addiction in pregnant individuals.
- Demonstrate the implementation of nicotine addiction treatment strategies in pregnancy, aligning with recommended best practices.

These revisions encapsulate a more active learning engagement and measurement of competence, moving beyond mere understanding to application, analysis, and demonstration of knowledge.

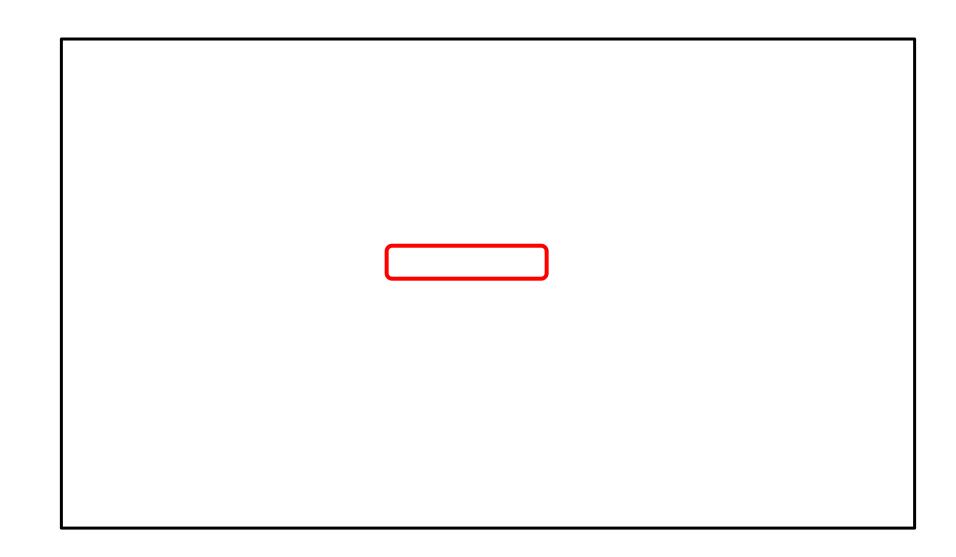
## What educational strategies could be used to meet these objectives?

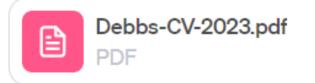
Meeting these objectives effectively requires a mix of educational strategies that engage the learners, promote active participation, and facilitate the application and assessment of knowledge and skills. Here are several educational strategies tailored to your objectives:

- Interactive Lectures and Discussions: Delivering lectures that incorporate case studies, real-world examples, and interactive discussions can help elucidate the treatment protocols for substance addiction in pregnancy.
- Case-Based Learning: Use real or simulated case scenarios to encourage learners to apply the knowledge gained about treating addiction in pregnant patients. This strategy promotes critical thinking and problem-solving skills.
- Simulation Training: Simulated scenarios using mannequins or actors can help learners practice and demonstrate the implementation of treatment strategies in a controlled, safe environment.
- **E-Learning Modules**: Develop online modules that learners can go through at their own pace. Include interactive quizzes, videos, and assessments to ensure understanding and retention of the material.

- Role-Playing Activities: Role-playing exercises can be used to simulate patient encounters, enabling learners to practice communication skills and apply treatment protocols in a supportive, educational setting.
- Peer Teaching and Learning: Encourage learners to teach and learn from each other by presenting on different topics related to substance abuse treatment in pregnancy, or by discussing and solving case problems in small groups.
- Reflective Journals and Portfolios: Have learners maintain reflective journals or portfolios where they can document their learning journey, insights gained, and areas for improvement.
- Self-Assessment and Peer-Assessment: Incorporate selfassessment and peer-assessment tools to help learners evaluate their own understanding and performance, as well as receive feedback from their peers.

### CV >>> Bio





You are creating a website for a CME activity. All speakers were asked to submit a bio, but this speaker submitted a CV instead. I need you to read his CV (uploaded) and create a 1 paragraph bio for him for website use. Avoid overly flourishing language. Keep it professional. Be sure to include where he went to medical school, residency and fellowship, and any major accomplishments, if applicable.





### 15 Seconds Later...

With this information, I'll craft a concise and professional biography for Dr. Robert H. Debbs.

Dr. Robert H. Debbs, DO, is a seasoned obstetrician and gynecologist with specialized training in maternal-fetal medicine. He earned his D.O. from the Philadelphia College of Osteopathic Medicine and subsequently pursued his residency in Obstetrics and Gynecology at the University of Medicine and Dentistry of New Jersey, Kennedy Memorial Hospitals - University Medical Center, Stratford, NJ. Furthering his expertise, Dr. Debbs completed a fellowship in Maternal-Fetal Medicine at Pennsylvania Hospital, Philadelphia, affiliated with the University of Pennsylvania School of Medicine. He has garnered notable certifications, including Critical Care Obstetrics from Vanderbilt University and The University of Texas Medical Branch, as well as from the American Institute of Ultrasound in Medicine. In addition, Dr. Debbs holds advanced qualifications in fetal heart rate monitoring, interpretation, and management.

### Simulation/Curriculum Planning

You are a medical simulation and educational design expert. For a conference of 250 OBGYNS, I want to use simulation-based learning. Design a rotation schedule over 3 days to ensure everyone is exposed to each of 5 stations, and has enough time to properly learn and demonstrate. Keep in mind there are other sessions being held concurrently.





 Certainly! Simulation-based learning can be a very effective way to engage OBGYNs, allowing them to practice specific skills and scenarios in a controlled environment. Let's design a rotation schedule for the conference.

#### Parameters:

1. Total number of OBGYNs: 250 Total number of stations: 5

Duration: 3 days

Considering that other sessions are being held concurrently, we'll allocate time for morning and afternoon simulation sessions, allowing breaks and time to attend other sessions.

#### Schedule Overview:

Day 1 to Day 3:

Morning session: 9:00 AM – 12:00 PM

Break: 12:00 PM - 1:00 PM

Afternoon session: 1:00 PM – 4:00 PM

#### Breakdown:

Each session will be 3 hours.

Each of the 5 stations should ideally have an equal amount of time. This translates to 36 minutes at each station (3 hours ÷ 5 stations = 36 minutes/station).

We'll have a short 12-minute transition/break time between stations, allowing attendees to move, gather thoughts, and get ready for the next station.

Grouping:

With 250 OBGYNs and 5 stations, we can divide them into 5 groups of 50 each.

Each group will rotate through all 5 stations during a single 3-hour session.

#### Rotation Schedule:

#### **Day 1:**

Morning Session:

• Group A at Station 1, Group B at Station 2, Group C at Station 3, Group D at Station 4, Group E at Station 5.

#### Afternoon Session:

Group E at Station 1, Group A at Station 2, Group B at Station 3, Group C at Station 4, Group D at Station 5.

#### • Day 2:

- Morning Session:
  - Group D at Station 1, Group E at Station 2, Group A at Station 3, Group B at Station 4, Group C at Station 5.

#### Afternoon Session:

Group C at Station 1, Group D at Station 2, Group E at Station 3, Group A at Station 4, Group B at Station 5.

#### Day 3:

- Morning Session:
  - Group B at Station 1, Group C at Station 2, Group D at Station 3, Group E at Station 4, Group A at Station 5.

#### Afternoon Session:

 This could be used for any catch-up, reviews, or additional simulation needs. Alternatively, consider a final demonstration or a competitive simulation challenge to engage the attendees and consolidate their learning.

#### **Logistics and Tips:**

- 1. Clearly mark each simulation station.
- 2.Ensure simulation equipment and materials are prepped and ready before the start of each session.
- 3. Have facilitators or instructors at each station to guide, teach, and offer feedback.
- 4. Provide a feedback form or digital platform for participants to give their inputs after each session.
- 5.It may be useful to have a brief orientation at the beginning of the first day to explain the rotation, timings, and expectations.
- Remember to adjust the schedule based on specific logistical constraints, room availability, and equipment needs. Ensure that facilitators are well-informed about the rotation to ensure smooth transitions.

#### Grouping:

- 1. With 250 OBGYNs and 5 stations, we can divide them into 5 groups of 50 each.
- 2. Each group will rotate through all 5 stations during a single 3-hour session.





50 per group is too many. Restructure for 10 per group

Got it! If we're going for groups of 10 per station, that would mean we'll have 25 groups in total. Let's design a new rotation schedule based on this:

#### Parameters:

- 1. Total number of OBGYNs: 250
- 2. Total number of stations: 5
- 3. Total number of groups: 25 (10 OBGYNs per group)
- 4. Duration: 3 days

#### Schedule Overview:

#### Day 1 to Day 3:

- Morning session: 9:00 AM 12:00 PM
- Break: 12:00 PM 1:00 PM
- Afternoon session: 1:00 PM 4:00 PM

#### Breakdown:

- 1. Each session will be 3 hours.
- 2. Each of the 5 stations should have an equal amount of time. This translates to 36 minutes at each station (3 hours  $\div$  5 stations = 36 minutes/station).
- 3. We'll have a short 12-minute transition/break time between stations, allowing attendees to move, gather thoughts, and get ready for the next station.

\*\*Rotation Schedule:\*\*

Since we have 25 groups, each day we can accommodate 10 groups in both the morning and afternoon sessions (5 groups in the morning, 5 groups in the afternoon).

- \*\*Day 1:\*\*
- Morning Session:
  - Groups 1-5 rotating through Stations 1-5
- Afternoon Session:
  - Groups 6-10 rotating through Stations 1-5
- \*\*Day 2:\*\*
- Morning Session:
  - Groups 11-15 rotating through Stations 1-5
- Afternoon Session:
  - Groups 16-20 rotating through Stations 1-5
- \*\*Day 3:\*\*
- Morning Session:
  - Groups 21-25 rotating through Stations 1-5
- Afternoon Session:
  - This could be reserved for additional training, catch-up sessions, or other activities.

This schedule ensures that each group of 10 OBGYNs gets dedicated time at each of the 5 stations across the 3 days.

### DDX Case Vignette Creation

create a table of top key differential diagnoses for fibromyalgia, and in another column, list the

type of physician who cares for that condition



Differential Diagnosis	Type of Physician		
Chronic fatigue syndrome	Internist, Rheumatologist		
Osteoarthritis	Orthopedic Surgeon, Rheumatologist		
Rheumatoid arthritis	Rheumatologist		
Hypothyroidism	Endocrinologist		
Myofascial pain syndrome	Rheumatologist, Physiatrist (Physical Medicine and Rehabilitation)		
Systemic lupus erythematosus (SLE)	Rheumatologist		
Ankylosing spondylitis	Rheumatologist		
Lyme disease	Infectious Disease Specialist		
Multiple sclerosis	Neurologist		
Polymyalgia rheumatica	Rheumatologist		
Depression	Psychiatrist, Psychologist		
Sleep disorders	Sleep Medicine Specialist, Pulmonologist		

### Next Prompt

AN

Now, you are the designer for education for physicians, can you create a series of three complex and detailed case vignettes by which a physician could practice differential diagnosis of fibromyalgia. Each vignette should have 5 options from the learner to select from, with a rational provided for each incorrect and correct response. Provide a citation for each correct response. The vignettes should be crafted to assess competence, not simply knowledge. They should be complex and multi-dimensional, similar to what a physician would actually see on a real patient visit. For each vignette, create a table of characteristics of the condition that was correct for the vignette, characteristics of fibromyalgia, and overlapping characteristics. IN the characteristics of the condition that was correct for the vignette, bold the characteristics that were relevant to the vignette and are not suggestive of fibromyalgia.

#### Vignette 1:

#### Presentation:

A 45-year-old woman named Sarah presents to the clinic with a 6-month history of generalized fatigue and pain in multiple joints. Sarah describes the joint pain as symmetrical, involving primarily her small joints such as her wrists, knuckles, and ankles. The pain is accompanied by morning stiffness lasting more than 90 minutes, making it hard for her to get out of bed. She also mentions that her eyes have been dry and itchy for the past few months and she often feels like she has a grain of sand in them. Furthermore, she has noticed increased dental cavities, attributing it to what she feels is a noticeably dry mouth.

She denies skin rashes, photosensitivity, hair loss, or any neurologic symptoms. She also states that she does not experience widespread muscle pain or specific tender points on her body. Upon examination, the Schirmer's test shows decreased tear production, and her salivary flow rate is low. Labs reveal a positive Anti-nuclear antibody (ANA) and a positive anti-SSA (Ro) and anti-SSB (La) antibodies. Rheumatoid Factor (RF) is also found to be positive.

#### Options for Diagnosis:

- 1. Fibromyalgia
- 2. Chronic fatique syndrome
- 3. Rheumatoid arthritis
- 4. Sjögren's syndrome
- 5. Systemic lupus erythematosus

Correct Diagnosis: 4. Sjögren's syndrome

#### Rationale:

- Fibromyalgia: Incorrect. Though Sarah experiences generalized fatigue and joint pain, she
  denies the presence of tender points or widespread muscle pain, which are characteristic of
  fibromyalgia.
- Chronic fatigue syndrome: Incorrect. Despite Sarah's fatigue, the symptom profile with dry eyes, dry mouth, and positive autoimmune antibodies make CFS less fitting.
- Rheumatoid arthritis: Incorrect. While Sarah has joint pain and a positive RF, the prominent sicca symptoms (dry eyes and mouth) along with positive anti-SSA and anti-SSB antibodies point away from RA as the primary diagnosis.
- 4. Sjögren's syndrome: Correct. Sarah's dry eyes and mouth, combined with positive anti-SSA and anti-SSB antibodies and a positive Schirmer's test, align with Sjögren's syndrome. The joint pain and stiffness she's experiencing can also be attributed to this condition. [Reference: Fox RI. Sjögren's syndrome. Lancet. 2005;366(9482):321-31].
- Systemic lupus erythematosus: Incorrect. While SLE can present with joint pain and a
  positive ANA, the absence of other hallmark symptoms like malar rash, photosensitivity,
  and nephritis combined with the presence of prominent sicca symptoms and specific
  antibodies makes SLE less likely.

#### **Table: Characteristics of Conditions**

Characteristic	Sjögren's syndrome (Correct)	Fibromyalgia	Overlapping
Symmetrical joint pain in small joints	Yes	No	No
Morning stiffness > 1 hour	Yes	No	No
Fatigue	Yes	Yes	Yes
Dry eyes and mouth (sicca symptoms)	Yes	No	No
Positive ANA	Yes	No	No
Positive RF	Yes	No	No
Positive anti-SSA and anti-SSB antibodies	Yes	No	No
Tender points	No	Yes	No
Sleep disturbances	No	Yes	No

Would this level of detail suffice? If it does, I can proceed with creating the next two vignettes in a similar fashion.

Based on this case, create an appropriate image of what Sarah may look like:

A 45-year-old woman named Sarah presents to the clinic with a 6-month history of generalized fatigue and pain in multiple joints. Sarah describes the joint pain as symmetrical, involving primarily her small joints such as her wrists, knuckles, and ankles. The pain is accompanied by morning stiffness lasting more than 90 minutes, making it hard for her to get out of bed. She also mentions that her eyes have been dry and itchy for the past few months and she often feels like she has a grain of sand in them. Furthermore, she has noticed increased dental cavities, attributing





what are my limitation son use of this image



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