DELAWRITER

The quarterly newsletter of AMWA-DVC

AI and the Future of Medical Writing

By Elisha Gillette

Controversy over the use of artificial intelligence (AI) has risen in recent years as accessibility of platforms like ChatGPT, Copilot, and Gemini have brought the technology into the mainstream.

To help address this ongoing conversation, Núria Negrão, PhD, a full-time freelance medical writer and speaker about AI for medical writing and science communication, gave a presentation titled *What You Need to Know About AI in Medical Writing* at the 22nd Annual Freelance Workshop, held virtually on Saturday, March 9, 2024.

Negrão, a self-professed AI enthusiast and a generative AI power-user, stated, "In the next 2 to 3 years, AI will be integrated into most aspects of medical writing," as it offers faster turnaround times and improved accuracy. By helping writers and editors understand the history of AI tools and how they work, she hopes to help make our business lives easier and our work better.

Negrão described the 4 main uses of AI: text, image, sound, and video generation. She then went on to explain her three objectives for the

discussion:

- AI education is important
- We all need AI guidelines
- AI does not have to be perfect to be useful

AI Education is Important

Negrão first delved into the history of AI. Despite the common misconception, AI is not new. It is a "deeply researched, well-developed science field." Early examples include the Enigma machine and Colossus computer that were used during World War II.

AI was founded on the idea of creating computers that could complete tasks that "were regarded as uniquely human; tasks that required intelligence." There are a number of ways for computers to display intelligence and these include classical AI, machine learning, and deep learning.

- Classical AI uses a list of instructions, as when you cook a recipe
- Machine learning uses learned experiences, as when you learn to ride a bike
- Deep learning takes classical AI and machine learning and builds upon it using artificial neural networks

After Deep learning, Large Language Models (LLM) were created to help train computers on trillions of language elements so the machine learns natural language by pulling out task words and context to create the content requested by the user. LLMs do this by using predictive modeling, similar to the way your text messages suggest a word for you based on what you've already written. With this immense database to pull from, it is important to be clear. Negrão explained, the clearer you are, "the better the output will be."

LLMs are, however, limited by memory capacity, data conflicts, or outdated information, which can lead to the very real risk of plagiarism. This risk increases as the topic broadens since web content is not always properly attributed. Certain programs can provide reference links to PubMed, but it is important to confirm that capability ahead of time. Verification of content is a must when using these systems.

Other limitations include data privacy and ownership. Some programs have settings to exclude certain data but not all. It is vital to be aware of the limitations of the program and what specific information you are adding into the system. While human-generated content is subject to copyright laws,

AI-generated content is not. If you have further questions about this, speak with an intellectual property attorney.

We All Need AI Guidelines

Guidelines are necessary for everyone since the programs are not yet uniform. Negrão provided some questions to consider as you generate your own guidelines:

- Are employees allowed to use AI tools to generate content?
- Do employees have to disclose their use of AI in final outputs?
- Which types of tools are you using?
- What are the legal, privacy, data, and security risks?

She stressed that it is important to be aware of policies around data collection. Smaller programs may not be as stringent with data collection as larger, more well-known programs. If you need a place to start, Negrão provided guidelines that had been created by Cuttsy & Cuttsy Medical Communications Company: https://www.cuttsyandcuttsy.com/latest/using-generative-ai-in-healthcare-comms-our-promise-to-our-clients

AI Does Not Have to be Perfect to be Useful

AI is a tool, but like all tools, it is limited by its current capacity. Negrão said it best, AI "is not perfect," but that does not mean it is not useful. It can still help us reach our audience by assisting in such tasks as outlining, planning, summarizing, and translating. It can even help in drafting and editing, but in the end, it is a tool. It "should not replace the human experience of writing, creating, and thinking."

AI is an available tool to help make our jobs easier, not replace us. As Negrão said, "you are still writing, AI is just helping you."

Elisha Gillette is a freelance medical editor who has been working within the industry for over 15 years. She resides in Broomall, PA.

AMWA-DVC Freelance Workship Dinner

By Jennifer L. Giel

Six medical writers (and a couple of guests) braved the rainy downpour to meet in person at Bertucci's in Springfield, PA in the evening following the virtual AMWA-DVC Freelance Workshop on March 9, 2024. Topics during dinner ranged from professional to social. Regarding artificial intelligence (AI), those who attended the virtual meeting thought that Núria Negrão's

talk, "What You Need to Know About AI in Medical Writing," was very informative. Many of the medical writers noted that they do not completely trust AI, and one noted that several congresses and journals have mandates against its use. However, writers anticipate that AI will be adopted in some manner in medical writing. On another note, some AMWA-DVC members are looking forward to the next national AMWA meeting in New Orleans on October 23-26. A more nonserious topic of conversation centered on regional accents, with one native Philadelphian stating that he'd heard that Philadelphians do not speak with an accent! (However, this Midwesterner can assure you that Philadelphians most certainly do have an accent.) While virtual workshops are great for flexibility and allowing people from all over the world to attend, networking tends to thrive in an in-person setting, so the dinner was a welcome complement to the virtual meeting.

AMWA-DVC Freelance Workship Dinner, 2024

Jennifer L. Giel, PhD, is a freelance medical writer in Pennsylvania who has 15 years' experience in medical and scientific publications.

Summary of the Uses and Abuses of ChatGPT and Other AI

By David Romanofski

Dr. Erik Benau's finale presentation of the 2024 Princeton Forum of the AMWA-DVC left the 29 participants feeling some way between the Energizer Bunny and Frankenstein (explanation forthcoming) with his lecture, "Uses and Abuses of ChatGPT and Other AI." Dr. Erik Benau is the son of Dr. Danny Benau, the co-chair of the 2024 Princeton Forum. Dr. Erik Benau is an Assistant Professor of Psychology at SUNY Old Westbury, in the heart of suburban Long Island. Benau's PhD is in clinical

psychology with a significant emphasis on health psychology. Instead of explaining the focus or discussing the presentation's highlights, Benau cunningly asked ChatGPT to do it for him. Benau asked ChatGPT to define itself in five bullet points. He agreed with what the responses were:

· ChatGPT is what is known as a large language model.
· It has contextual awareness.
· It has conversational abilities.
· It is designed for application versatility.
· It has natural language understanding.

Touching on the history of generative AI, Benau explained that Alan Turing, an early computer scientist, argued that computers' inputs and outputs would be indistinguishable one day. When that happens, we will face "doomsday" because machines will take over our society.

Benau then shifted his presentation to discuss the good, bad, and ugly aspects of Generative AI. He discussed how ChatGPT can generate pictures, check grammar, assist with literature searches, and even help find that one word or phrase you cannot think of at that moment of writing. He then shared an image taken from a medical journal where the authors failed to accurately match the data [sperm cells] with the intended AI-produced image, a rat with a huge penis and, as Benau described it, "family unfriendly words" which accompanied the image. He also discussed how ChatGPT can be a focal point of academic dishonesty. One way to combat academic dishonesty, Benau shared, was for professors to "hide" hidden words or phrases in academic questions for learners to answer; one way was to include an analogy of the energizer bunny typed in 5-point font and white text among the intended question of "Summarize the plot of Frankenstein in two paragraphs." If the learner is not diligent in their attempt at dishonesty, they will submit a paper that compares Frankenstein to the moxy of the Energizer Bunny.

Benau pointed out some controversial points: antagonists of generative AI argued that ChatGPT's output was "too white." Another was that the old stalwarts of clinical psychology "didn't like the idea [Generative AI] and wanted to hold steadfast to actual research papers."

Benau then transitioned his presentation to Dr. ChatGPT and healthcare. Centering on his expertise in clinical health psychology, he shared a study by Levkovich and Elyoseph (2023), which analyzed 1245 Primary Care physicians (PCPs) vs. ChatGPT about case studies with depression. Benau described the findings as he shared that ChatGPT gave the same advice in

regards to therapeutic approach regardless of gender status. Women were less likely to be referred for psychotherapy medications by PCP's as opposed to their male counterparts. Patients in "white collar" jobs had higher referral likelihood to psychotherapy than those in "blue collar" jobs. Dr. ChatGPT was not tailored for race. The patient was ten times more likely to change treatments for the better if they were insured.

Dr. Benau concluded the medical portion of his presentation by comparing Dr. ChatGPT with Dr. Google. Both are unregulated sources of medical advice, inviting the potential for unlawfulness and harm. Still, Dr. ChatGPT has the potential to be a better option than Dr. Google because of fewer biases. As Benau stated, "Dr. ChatGPT is off to a mediocre start when giving medical advice, but time will tell."

Dr. Erik Benau recapped "Uses and Abuses of ChatGPT and Other AI" by saying, "Heed the uses of Grammarly because regulators are building in AI detectors (the NIH already is) and the use of Grammarly will set off the detectors." Furthermore, Benau continued, "Significant unrealized potential exists in the coexistence of the healthcare industry and Generative AI. We should embrace the moment we are here because, as it stands, these times are taming what it was like to live in the Wild West…experiment with it; the possibilities are boundless." Benau suggests embracing generative AI and apps like ChatGPT because trying to limit it or even ban it is futile, citing a quote from Dr. Strangelove, "Deterrence is the art of producing in the mind of the enemy… the fear to attack."

David Romanofski is currently pursuing his Doctorate of Education from Drexel University. He is trying to break into the medical writing field. David currently resides in Bellmawr, NJ.

Many Thanks to Jacquie Mahon

AMWA-DVC thanks Jacquie for being the managing editor of the Delawriter for 2 years! Thanks also for showcasing AMWA-DVC members who contribute time, energy, and expertise to AMWA's Delaware Valley Chapter in the Volunteer Corner.

CALL FOR VOLUNTEERS

Volunteer Opportunities with AMWA-DVC Freelance Workshop Committee

Volunteering for the AMWA-DVC Freelance Workshop is a great way for you to:

1. Make key contacts
2. Get referrals or leads for freelance work
3. Build new skills.

We have opportunities for several committee members. Committee members help with tasks such as:

· Hotel/location (Logistics committee) (A seasoned FW volunteer will help mentor about location and contract details) Point person for questions on location (eg, checking signs)

· Theme, speakers, and topics; revise brochure template (Program committee) (A third seasoned FW co-chair has volunteered to be on program committee but not chair it; previous rubrics available for selection of abstracts for oral and roundtable leaders (Program committee)

· Promotion (Promotion committee) (A seasoned FW volunteer will help guide the promotions of FW)

· Day of workshop activities such as on-site registration (meet all registrants)

Committee members can expect to spend from about 2-15 hours on the workshop, depending on the tasks.

Interested in volunteering for the Freelance Workshop or learning more? Email Lori DeMilto at loriwriter@comcast.net with "Volunteer for Freelance Workshop" in the subject line.

Opportunities for Volunteers to Co-Chair and Help with Set-Up and Programs for the Online Princeton Forum

Demonstration of Leadership capabilities enhances your resume. AMWA-DVC will help coach AMWA-DVC members to become leaders for the

online Princeton Forum in the spring of 2025. The Princeton Forum focuses on how to write different types of documents, such as regulatory documents, continuing medical education, publications, grants, and sales training. Open positions include 2 co-chairs and 2 volunteers in the program and marketing committee. Responsibilities include identifying topics and speakers, follow-up with presenters before the conference, advertising to colleagues, other chapters and the national organization, registration management, and online management on the day of the conference.

Interested in volunteering for the Princeton Forum or learning more? Email Kathy Molnar-Kimber at kmolnarkimber297@hushmail.com with "Volunteer for Princeton Forum" in the subject line.

Quotes of the month:

"People who wonder whether the glass is half empty or half full miss the point. The glass is refillable." – Unknown

"The best investment you can make, is an investment in yourself... The more you learn, the more you'll earn." – Warren Buffet

Jokes for the Quarter:

Do you know what gets on my nerves?
Myelin.

My teenage daughter can't decide whether she wants to be a hairdresser or a short story writer... I guess she'll have to flip a coin.... Heads or Tales.

Avoid this automated suggestion typo:
Dear…
I hope this change in venue doesn't cause you too much incontinence...
(instead of inconvenience)

Delawriter Editorial Team

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