

Hey Google: help me write a convocation address about the art and science of health care practice

Mary McNally MSc, DDS, MA

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Greetings colleagues, family and friends It is an immense honour to be one of the first to welcome all of you - my newest colleagues - into your chosen dental professions. Congratulations and welcome. Thank you, President Brooks and Chancellor Southwell for the opportunity to be here and Dr. Davis for your kind introduction.

Dr. Davis touched on my interests and career path in dentistry and academia over the years ... I can only hope all of you experience the joy and enrichment in your careers that I have.

And now – – in my post-retirement studies in visual arts... I've had the privilege to think about the world around us with a new lens - about learning, about academia, and most relevant to today, about the ways in which art (as both a disposition and a vocation) shares distinct characteristics with our chosen professions.

We often hear the statement tossed around... “Dental Practice – and in fact any health care practice - is both an art and a science” ... For me, could there be a better time to explore this topic? So, of course, I opened my laptop and typed: “help me write a convocation address about the art and science of health care practice.” Not surprisingly, some pretty impressive responses popped right up!!

By now, most of us are familiar with concepts of Artificial Intelligence – or AI. And, as I soon learned - AI chatbot platforms, with their Large Language Models and Machine Learning algorithms – were efficient in responding to my convocation speech question - presenting do's and don'ts and providing impressive memorable messages and quotes. On its surface, it was really good stuff

We all know that chatbots and other forms of AI draw from endless internet-based sources and databases ... and, although mine is a seemingly harmless question, it's easy to overlook that - behind it all - are contributors whose intellectual and creative innovations may be being appropriated without their knowledge or consent. So, it leaves one to wonder: What is the provenance of the databases and narratives I'm seeing? Is there sufficient diversity amongst the creators of the chatbot platforms to be relevant? What other types of biases might be informing the content?

So – while my first inclination was that the AI-generated convocation address “was really good stuff”, I’m now inclined to ask... is it “really good stuff”?

This is what I do know – in my own humble words and with my own humble biases: You – all - definitely inhabit the worlds of both “art and science”.

SCIENCE:

To consider SCIENCE I want to draw for a moment on the work of renowned surgeon and scholar Atul Gawande who says, “Science is not a major or a career. It is a commitment to a systematic way of thinking, an allegiance to a way of building and applying knowledge”

For those of us in health care, we become an integral part of the larger scientific community. Through systematic inquiry and observation of human health, of disease, of social conditions, of interventions ... scientific evidence and clinical knowledge is built.

Regrettably, we also know that – despite the incredible information age we live in - scientific knowledge - is in peril. Pseudoscience - generated by myths, misinformation, disinformation, fake news and conspiracy theories - is polarizing. It underpins a mistrust of evidence-based knowledge and ultimately, threatens health.

As the newest health care professionals – this might be discouraging. However, it's important to keep in mind the privilege you will have at the one-on-one patient encounter. Most patients will trust you because of who you are and the expertise you bring. For those who question and may not trust, we must ask why? Pseudoscience is one challenge, but patients' beliefs, their cultural or religious norms or ideological identities for example, could be at odds with science.

Even in the mainstream – knowledge generated through the most credible scientific discovery is mistrusted when it is contradictory or incomplete. When that happens, people question - not only the message - but also the messengers... “how can you believe anything they say?”....

But, as members of the scientific community - we know that contradictory findings are part of the process of a complicated and sometimes imperfect system; differing scientific claims are an indication that new knowledge is being generated that challenges the old.

Gawande reminds us that –*the hive mind swarms ever forward* ... In other words - scientific discovery presses on – the good stuff stays and the bad stuff eventually gets weeded out. And, we have to be patient with this. The continued distillation of sound evidence-based knowledge - is what guides us toward best practices for the benefit of our patients.

The hive mind swarms ever forward... Or, as one of my favourite comedians says “science knows it doesn’t know everything ... otherwise, it would stop!!”

ART:

To identify ourselves as members of the scientific community is pretty intuitive.... But, what about my suggestion that we also inhabit the world of art? Like science, art opens us up to particular ways of thinking, of doing, of engaging and - especially – for expressing our knowledge. Just think for a minute about your practice ...

Over the past number of years, most often working at the level of micromillimeters, you have been mastering a breadth of creative techniques. Imaging and photography; assembling, sculpting, and shaping a range of materials including alginate, stone, polyvinyl, plaster, resin, ceramics, glass, metal (gold, silver and titanium) to name a few. You have instrumentation and colour theory. You have undertaken product design and fabrication. Your understanding of the relationship of material to esthetics, to form and function enables countless ways for you to be creative in attaining optimal function and health for your future patients.

Indeed, imaging and various forms of “making” are inherent to your practices every day ... But, we also share other distinctive intensions and aspirations of art practice!

Art is a form of inquiry through which to explore;

Art is a means of communication;

Art invites mutual participation and shared emotion;

To paraphrase teacher and artist Lynda Barry, ‘Art-making is a way of sharing an alive “something” with another human, who in turn is able to have a “sustained and interactive relationship with [that something]’.

I’m not suggesting that a patient is our blank canvas (although, metaphorically, there is an element of that)... Rather, leaning into the habits and intentions of the artist within us, will serve to enrich the relationships we have with others.

In a curious way, my reflection on the ways in which “art” inhabits our practice lives, brings me back to Artificial Intelligence. Given its ever-expanding capacity to commandeer and develop content within virtually every realm – AI has also been a disrupter in the art world. It has raised questions about the relevance and possible displacement of artists that could similarly be asked of us as health care practitioners.

The good news – I believe – is that responses from the artworld are similarly relevant. Artist David Szalay recently wrote: *“The image of “content” to describe the product of human creativity – what we call in certain circumstances art – is obviously an image of something sort of poured passively into a container. But art is not a passively existing lump of content. Art is a form of communication between human beings. That’s the point of it. The human-to-human aspect isn’t*

something incidental – it's the whole essence of it"... Szalay reminds us that AI is not a living being and therefore AI can never truly understand and apply what it is to be human.

Likewise, healthcare is not a passively existing lump of content. As with art, it is the intimate and human-to-human aspect that is the essence. AI does not have the lived experience to instill trust or to offer compassion, generosity and empathy.... virtues that are central to what we do.

On the other hand, AI is a technological marvel that will increasingly serve as a valuable collaborator and will supplant many of our current tasks. But, at the patient encounter – Artificial Intelligence is an adjunct and you are - to borrow another word from the artworld - the curator. Select only the most trustworthy AI platforms with which you engage. And remember only we humans have the experience of the human condition - in all its complexity – to authentically and meaningfully engage with another human. This will forever distinguish you, your role and value in your professional lives.

I wish you all the very best ... Thank you.

Available at: <https://www.youtube.com/watch?v=eVHAtaiAKvE&t=1s>

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