

WHAT'S HAPPENING AT THE HEALING SPACE

TECHNOLOGY TO OPERATIONS IN MY MEDICAL PRACTICE

BY ALLEN GEE

A long-standing passion of mine has been utilizing technology to improve medical practice in a cost-effective manner. My first big movement into this realm was integrating Electronic Health Records (EHR) into my practice. In 2005 I signed up with my third EHR, AthenaHealth, having failed with the first two attempts and having run out of money. Curiously, Athena was surprised to find out I was already using a tablet computer and voice recognition speech to text software. I dictated my patient notes, assessments, and treatment plan in real time with the patient present. I found great pleasure introducing this model to Athena and integrating it with their platform. Since then, I have been able to complete my notes as I'm seeing the patient without any extra work after hours. I found out a decade later that I was the 22nd physician on AthenaHealth clinical platform.

A second arena where I have utilized technology to advance my practice is Telehealth. I believe in the power of connecting patients with care. In 2006 I participated as a student in the American Academy of Neurology Palatucci Advocacy Leadership Forum. My passion project there was bridging geographic barriers to healthcare with technology, and this was the start of my advocacy for Telehealth. Before COVID, we utilized telehealth (video calls where I could deliver specialist consultations remotely) to serve rural patients. During COVID we used this infrastructure to see 90-95% of our patients, and now we see 30-35% of our patients remotely. Geography doesn't need to be a barrier to quality medical care when we have the technology to expand access to care.

A third example of my work translating technology to operations in medicine is a more recent example using movement focused technology. We are collaborating with Global Kinetics, using their Personal KinetiGraph (PKG) Watch to continuously monitor the symptoms of patients with Parkinson's Disease. The watch assists patients in taking their medication and tracks bradykinesias, dyskinesias, and overall movement. This remotely collected data allows me to better understand patient experience and substantially helps me to tailor treatment plans for actual functionality.

Over the course of my career, I have found the work of integrating technology into medical operations both fulfilling and important. I am excited to be continuing this work with projects in the Wyoming Health Innovation Living Laboratory, Personalized Precision Health, and additional clinical practice.

"The thing about going beyond is we have to keep going." -Cheryl Strayed



FRONTIER WELLNESS TIP

SET BOUNDARIES

Every human being needs to be able to feel safe in their bodies, their environments, and their relationships to be well. Safety requires boundaries. A lack of clear boundaries leads to resentment, misunderstanding, and anxiety, making it incredibly challenging (or impossible) to feel safe. Brené Brown defines boundaries simply as what is okay and what is not okay. When you set boundaries, you protect your time, space, body, and security.

A boundary can be anything you need it to be, it just requires that you are extremely clear with yourself and others about what is okay and what is not okay. Setting boundaries is a hard skill to learn and undoubtedly comes with discomfort. Give yourself grace as you learn this skill. You learn to set boundaries by recognizing what you need to feel safe and then sharing those insights in every area of your life.

When you set boundaries, you make space for more generosity, integrity, and flourishing in your life. To learn more about boundaries, how to set them, and why they matter [you can read more here.](#)

PARALLELS OF INFORMATICS & CREATING INTELLIGENCE

BY REGINA GEE

A useful way to think about the human nervous system is as a processing and integration platform. In other words, the nervous system is the biological informatics apparatus (though more complex, organic, and nuanced; your mind is more than a machine). In computing, informatics is the science of processing data for storage and retrieval. Our nervous system collects data from the outside world through an array of sensory and chemoreceptors, processes it, and orders it into coherent internal worlds. Through the work of the nervous system, external data becomes internal information. This information is stored, coded, and built upon to create a foundation of knowledge. Once knowledge is created, it becomes actionable and our nervous systems are able to respond accordingly to perceived external stimuli.

Informatics in health care systems is the processing of medical data collected from digital devices, scans, lab results, biophysical testing, etc into information, followed by secure and confidential information storage, and finally relevant information retrieval by physicians to create medical intervention. The nervous system and health care informatics are parallel data processing systems; they take in complex data, organize it into information, contextualize it into knowledge, and make it relevant, accesible, and usable.

Dr. Gee noticed this parallel infrastructure at an American Academy of Neurology Quality Committee meeting and has since been using it as a paradigm to fuel the integration and innovation of technology in medicine. Intelligence is the ability to acquire and apply knowledge. Understanding the nervous system and health care systems as mirrors allows us to see technology such as machine learning, AI, and big data as an opportunity to create meaningful and actionable intelligence for patients and health care teams.

WE'RE READING:

HOW TO DO THE WORK
BY NICOLE LEPERA

WE'RE LISTENING:

THE FITMIND PODCAST #71
WITH DR. ADAM GAZZALEY

WE'RE WATCHING:

LOKI ON DISNEY+



WORLD BUILDING

BY REGINA GEE

Our brains and nervous systems do incredible work – they are quite literally world builders. Neuroscientist David Eagleman puts this into perspective saying, “your brain is locked in a vault of silence and darkness inside your skull. All it ever sees are electrochemical signals that come in along different data cables, and this is all it has to work with, and nothing more.” Astoundingly, our conscious experience of the world is only ever second hand – it is the world created by our brain and nervous system as it attempts

to integrate the millions of sensations and perceptions collected from external stimuli. You have no direct experience of the objective world, rather your brain and nervous system create your subjective world. Eagleman uses the German term *umwelt* to frame this idea. *Umwelt* is: the world as it is experienced by a particular organism.

Humans are organisms imbedded in a world of big data - our brains process 11 million bits of information per second from the thousands of receptors embedded in our bodies. We have [at least 21 senses available to us](#). The job of our nervous system is translation, taking the language of the world and making its meaning accessible in the language of neurotransmission and thought. This is a process of integration – from the latin *integrare*: to make whole – of

creating your *umwelt*, the slice of your ecosystem you are able to perceive. Your brain creates a whole world, your subjective world, and presents it to you as the whole world, objective reality. In actuality, your brain is still locked in that dark work and your *umwelt* is perceived through a lens of survival; your perceptions are skewed to scan for danger - to keep you safe - not to recreate an objective reality.

Recognizing that your brain and nervous system as world makers, not reflectors, opens space to understand how you are in the world. And this awareness is the first step in making changes.

You are not your thoughts. You are the thinker of your thoughts. You can teach your brain and nervous system to perceive a world of abundance instead of scarcity.