

# dear residents

Managing Cognitive Overload

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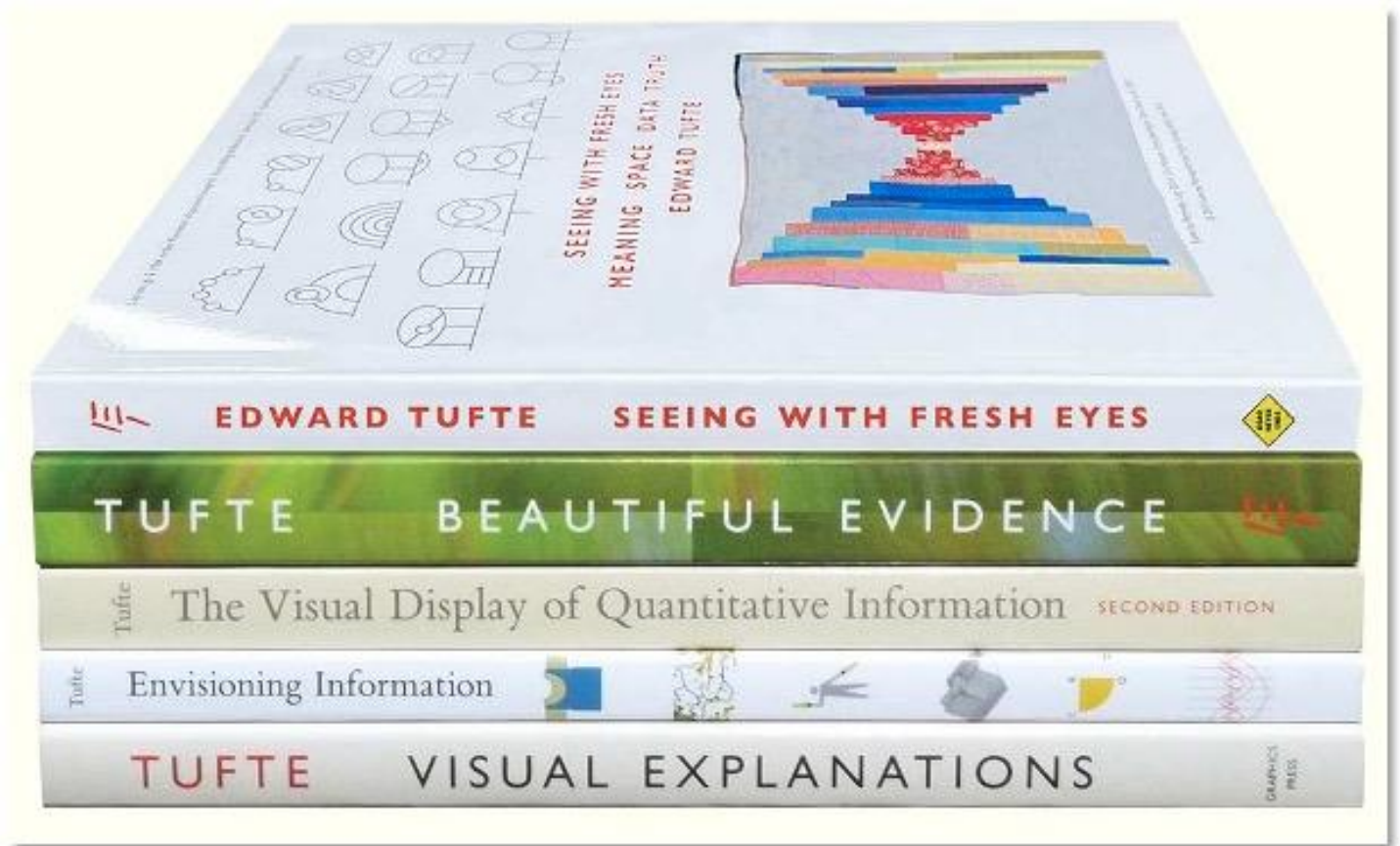
Dear Residents,

From **Parkland Now** to **Parkland Later** and everything in between, we face a barrage of information that is taxing – the fear of missing out on something timely and important is real. Our brains are saturated and we are coaxed by others to keep reaching within ourselves to continuously improve our performance. It is widely thought that social-emotional skills or “non-cognitive” skills are the answer. Authors like Angela Duckworth and Carol Dweck have popularized the concepts of “grit” and “growth mindset” respectively. **Grit** is about passion and perseverance for long term goals and **growth mindset** is the belief that intelligence is malleable. We are urged to be **intellectually curious** (the desire to think about difficult and new problems) and to embrace **mastery orientation** (the motivation to learn for the sake of learning).

Writing in the New York Times, Annie Murphy Paul, in an essay entitled [How to Think Outside Your Brain](#) makes note of “all the mental effort we’ve mustered over the past year has left many of us feeling depleted and distracted, unequal to the tasks that never stop arriving in our inboxes.” When we don’t get the rewards for our perseverance and grit, we turn to ourselves to ask whether we are smart enough or gritty enough. Annie Murphy Paul suggests that the real problem is that we are coming up against **universal limits**. The author suggests that we utilize physical space, physical objects and techniques such as sketching to achieve cognitive detachment.

In morning report at Parkland on Thursday, Sarah Williams sketched out the case, the time course plotted out on the whiteboard allowed us to see a picture that aided in our clinical reasoning. The physical space itself with a large glass window probably had a salutary cognitive effect as well. When the chem 7 is sketched rather than listed – we can “see” the anion gap more clearly. Coronal and sagittal views of CT scans are also helpful. The whole concept of simulated learning follows the idea that touch and feel enhance learning. The science of haptics in surgical simulators is gaining traction.

[Edward Tufte](#) has a series of books about the visual display of information – I have 3 of these and they are marvelous.



In our office we use a task tracking software called [click-up](#) which can display our work in many ways from lists, to a board view to a mind map. These multidimensional and spatial views are helpful.

You've also been told to listen to your body – this is typically used as a warning against physical overuse, the need to sleep, rest and eat right, but there is another valuable use – as a cognitive aid. I've written before about [interoception](#) (the ability to perceive internal signals). It may well be that the body senses and processes complex information and sends us signals that can aid in cognition – all that intuition and “gut feeling” have well-mapped neurological pathways from viscera to the anterior cingulate cortex. Being in the patient's room affords embodied learning that is difficult to explain – the concept of knowing when a patient is sick – that visceral sense that something is wrong. These are important clues the origins of which are not fully understood, but we all experience these moments.

In this age of cognitive overload, let's fully utilize the mental extensions available to us. We cannot reliably commit everything to memory – write stuff down in a reliable easily accessible place (read Daniel Levitin's [The Organized Mind](#) for an in-depth treatment of the subject). Sketch out problems. Return to the bedside to reassess the patient holistically. Draw out your thoughts and seek patterns. Listen to your body and train your intuition.

Wishing you a restorative week,

Dino Kazi