

Re-imagine Medical

Data Science & Storytelling for Medical Professionals

Principles and practices inspired by Dr Chris Mathew and Kojo Baffoe.

- Find new perspectives and get practical, innovative ways to approach challenges in your medical career.

Toolkit courtesy of The New School and WITS Healthcare Innovation.

[Listening without judgment] is about taking a step back and taking a breath and taking a moment before you respond.

- Kojo Baffoe



PRINCIPLES

Adopt a principle

Principles establish the underlying logic for why we do the things we do. Drawn from Dr Chris Mathew and Kojo Baffoe's work in health informatics and storytelling respectively, are principles to help you turn information into wisdom, and your wisdom into effective stories to transform the lives of patients.



PROMPT

Spark a mindset change

By leading with questions we are encouraged to challenge our assumptions about how we see the world, even as specialists.



PRACTICE

Try a new practice

Find practices for developing resilience inspired by Dr Mathew and Kojo Baffoe's work and expertise. The practices require little effort and the pay-off for repetition is an improved ability to gather data, make sense of it and turn information into wisdom.



PROCESS

Integrate a process to re-imagine storytelling

If you're ready to start combining practices into a repeatable process we've assembled a process based on Dr Mathew and Kojo Baffoe's work which will help you to improve the way to gather information and listen non-judgmentally to those people who are critically dependent on you.



PRINCIPLES



Edward Tufte urges us to acknowledge that when we choose how we look at something, like data, or a person's story we choose which assumptions we will apply. Many times we become blind to new patterns because we look to confirm what we assume to know already.

Fresh Seeing Challenges Old Conventions

To see or listen to a story with "fresh eyes" is to move away from our default models of the way things have always been done and to look for new models

Out of a belief that fresh seeing challenges old conventions arises a principle to listen without judgment. Before assuming to know what someone is trying to say, or assuming to know how to resolve a tension which has emerged, you might just listen.

Listen without Judgment

Listening without judgment requires focus – it doesn't come naturally because the dominant pattern is to listen to respond. You will need to develop a new way to think about listening if you are to move beyond old conventions and find new solutions.



Inspiration



Julian Treasure's TED Talk: 5 ways to listen better

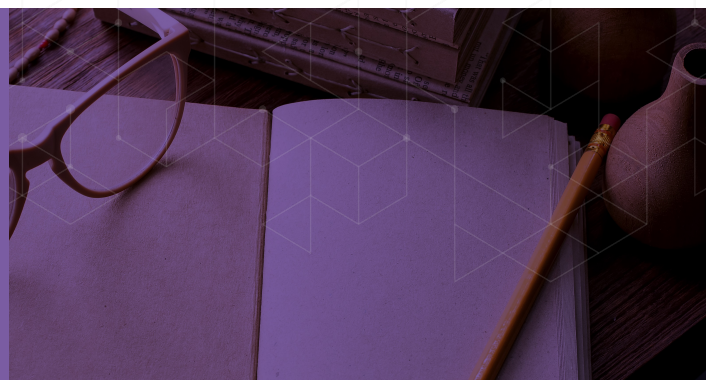
In our louder and louder world, says sound expert Julian Treasure, "We are losing our listening." In this short, fascinating talk, Treasure shares five ways to re-tune your ears for conscious listening -- to other people and the world around you.

[Click to Watch](https://www.ted.com/talks/julian_treasure_5_ways_to_listen_better?language=en)

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PROMPT



How might we have better practices that are evidence-based and backed by data?

This question pertains to being able to bring data into our practice actually using it to change our decisions and influences decisions and converting data to information.

Explore this prompt by using the 5 Why's technique. Also ask yourself, "How do I know what I know? What evidence exists to give me confidence in making the necessary decisions?"

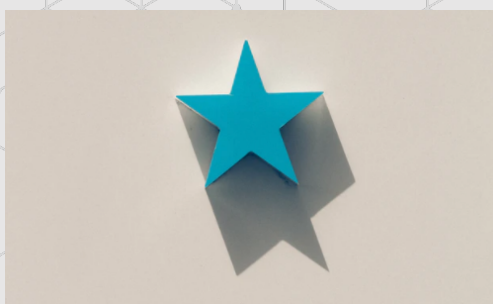
How might we become better observers / listeners to extract information and use data with minimal bias?

Kojo advises to avoid writing the "story" of your solution while listening, getting ahead with your script and being distracted from truly listening. Minimise exerting bias by acknowledging that there is inevitably some level of bias that we introduce as human beings. This act of recognition will help you become hyper aware of additional biases that would otherwise have been overlooked.

Explore this prompt by looking at data you have may have overlooked in the past with a fresh set of eyes. Ask yourself, "What is the data trying to tell me? What is the story that is emerging?"



Inspiration



The STAR Technique

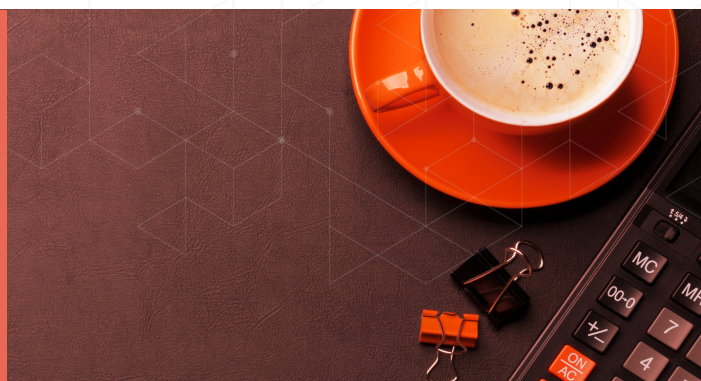
Dr Mathew uses the STAR technique to help him try to be a better storyteller. The method is originally used in behavioural interviews but can be adapted to help you convey what would have been an overwhelming amount of data in an easier accessible format.

[Read more](#)

(<https://www.sjbmedical.com/the-star-technique.cms.asp>)



PRACTICE



Overcoming Solutionism

It is easy to get trapped in solutions too early that may turn out to only poorly address a challenge, if at all. Avoid being tied into solutions that may immediately pop into your head or are popular at the time, potentially trying to fit a square peg into a round hole, so you are a bit more open to alternate approaches.

Assess the problem:

1. Take a step back and ask yourself, *What is the actual problem?* Source the relevant data to help you make this assessment
2. Break down the problem in an appropriate way for the context, e.g. mapping the system in which the problem exists
3. Determine how you might tackle this problem in that landscape

Repeat: As needed

Data: Signal vs Noise

The wealth of information available to our species has been a great enabler to the advances we have made. It has also been overwhelming, making it difficult to separate signals from the noise and being able to make sense of what we are consuming.

How might you start to curate medical information that may influence your practice?

Look at what you are consuming with a critical lens and a fresh set of eyes.

Try to filter out all the noise in the volume of data: by asking yourself, *What am I trying to learn about?*

Be very directive in your approach: pick a topic, be an expert in that or you can be a jack of all trades and a master of that.

Repeat: As needed



Inspiration



Data curation in medical science and healthcare

This interview with Dr Patricia Brennan, Director of the National Library of Medicine, covers topics such as the effect of having too much data, managing data that can be directly useful to patients, and de-biasing data sets.

[Listen](#)

(https://www.dcc.ac.uk/pattibrennan_interview)



PROCESS



Step 1

Identify challenges that you would like to address.

These may range from what is highly prioritised in your work environment to what will become an issue if not addressed in time.

Step 2

Determine what you would need to learn about then collect the relevant data as pertains to the challenge. If it's unstructured, you may need to make it structured so you can get information (e.g. from paper to digital dashboarding)

Step 3

Gather colleagues to see the information from the data. Have them approach this activity as that of a curious learner to generate questions about what they are seeing. Have them tell stories or anecdotes.

Step 4

Create *How Might We* (HMW) questions to spark inspiration to initiate the design phase of starting to address the challenge.

(See HMW process instructions below)

Consult with more stakeholders and explore possible solutions.

Tips

- Start small. Trying to solve for everything at once is overwhelming and ineffective.
- Your initial attempts at trying something new may feel uncomfortable at first as you stretch past your zones of familiarity. Persist in your efforts while keeping a watchful eye on the feedback data.
- You may not get the results you anticipated. This is expected as you explore the unknown.
- Work with others. The solo experience is not nearly as enriching as having colleagues act as a sounding board or as co-enablers of the process.



Inspiration



How Might We – framing your challenge as an opportunity for design

Very often, people may have data and insights from an identified problem area but get stuck on what to do next to get practical. The popular design thinking tool, the *How Might We* question, helps to turn these insights into a format that suggests that a solution is possible, can be answered in diverse ways, and helps kick-off the subsequent ideation process.

[Read more](https://www.designkit.org/methods/how-might-we)

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