

# Autonomy On Call - Notes

- Telemedicine is here to stay for outpatient care, most in Texas prefer telemedicine.
- Psychiatry is one of the areas where telemedicine is surprisingly effective.
- Elderly are also comfortable with telemedicine because they have a chance to experience it.
- We're expecting a robust innovation cycle in telemedicine because of all the data we have from the period of COVID-19.
- The trust issue comes in when we talk about data storage, not the communication via the internet itself. This is what holds back the patients.
- Physicians believe in the personal examination, this is disrupted through telemedicine. They are also concerned whether and how they're going to be paid or maybe even sidelined. That's why they resist change.
- The reason we use telemedicine now is that we're getting paid more. Not the same as inpatient visits though.
- Application of technology has to consider: healthcare as a system, doctors, "business" side of healthcare.
- AI cost-to-benefit ratio - it's expensive to implement it, but probably worth it in the long run.
- Immense areas unrelated to healthcare, but the key to the business aspect are not looked at enough. AI and tech are key in optimising this.
- Autonomous systems are not truly autonomous! They cannot (yet) function without humans, especially not in healthcare.
- The path towards full autonomy is very long, but it's worth taking it.
- How, for example, an ECG is interpreted by machines is not a replacement for a cardiologist - no patient circumstances and no stories are taken into account by the machine.
- What are some tasks machines can take on? Tasks that a physician is overqualified to do. Minimise tasks that physicians don't need to do and others (with the help of machines) can do.

- We're not at a place where a machine can replace a physician. Machines can offload tasks, physicians can think more. This is what we have to strive for.
- Machines can integrate data and present information based on which physicians can decide.
- We have to build some buffer capacity - the population is getting older and is growing.
- Augmentation means helping physicians and not replacing them.
- Humans are intrinsically bad at dealing with raw data. We will have to use machines to integrate data, read it and present it. Humans will think more.
- Empathy and AI concerning autonomous healthcare: getting data from sensors, etc is easy....data from interactions with people is key. AI can get more data and become more empathetic. Machines have to care about us!
- End of life conversations are maybe even better with chatbots. They compare to physicians that "learn" what to say.
- How do we scale autonomous healthcare? We reduce the number of variables and improve them. Another aspect is also using better guidance on how to use different medical devices (rural China is an example).
- The regulatory structure of data is a problem - there's no access to it. We cannot train these models. This is crucial for AI to learn but questionable in terms of privacy.
- Mission: How can we change the system and utilise machines to make care more efficient and better for everyone?