

One challenge for the future is prevention, says Jakob Boije

Medicine has come a long way since the early days of treating diseases only after they occurred, always one step behind. The future is about designing tools to always be one step ahead. We could be the last generation to eventually die. Billions are invested in research to stop aging and major global diseases. Health systems will use raw computing power and algorithms to tackle vast amounts of clinical data and combine it with behavioural data made available by patients and their technology use. We will see trends in complex data sets; we will accurately predict outcomes in large populations and individuals. We will track and measure the disease progress and impact of medication and treatment. We will course-correct the treatment to deliver optimal health support, leading to long-term improved outcomes. In summary, we are moving toward proactive health, supporting the entire patient journey from wellness to treatment towards long-term autonomous self-care. Precision health is a new standard of care, delivering early and targeted interventions to match people's unique health needs.

Will health care design still exist with today's characteristics?

The health care industry is one of the last major places for new technology to disrupt. It is now picking up rapidly, demonstrating real impact.

Today we are trying to design away the deficiencies of old legacy systems. Come tomorrow we can expect a new class of health delivery driven by advanced automation and personalisation. Design's role will shift from designing bespoke tools to large systems of support, writing the rules of activity and engagement, setting the goals for ideal outcome, and after that, letting the system find and run its own best way to obtain to our set goals. It will be driven by artificial intelligence.

What kind of consumer do you see in 20 years' time?

Patients will be "health consumers". Health consumers will continue to have similar types of clinical needs, meaning the role of pharma is not over. However, new augmented treatment options will be commonplace. Treatment advice such as "going for a run", supported by a wearable and sensors to track the specific health data and drug interaction, is already here. We will find ways to scale that beyond the smartphone owners to more senior and less capable groups.

Which of today's projects are picking up on ideas that were shelved years ago, and which are developing from new research?

Pharma is looking to better integrate its value propositions beyond the pill, delivering "digiceuticals" to build better ecosystems of care.

We are working with interesting efforts, large and small. One is Aifloo, an e-health system that meets high safety and reliability standards to give both caregivers and loved ones peace of mind. The resulting application, built on Aifloo's advanced artificial intelligence system, collects an individual's health data via a smart wristband. An AI engine aggregates and analyses the data to monitor anomalies that deviate from their normal baseline. The system can detect everything from a user's physical location to their movements to an epileptic seizure. It helps nursing home staff quickly gain insight into a resident's health so they're able to make more informed decisions. This approach was always in the minds of health practitioners, but only recently enabled through the combined agile development efforts of data scientists, engineers, physicians and designers working together with new tools.

Another example is Brighter, a next-generation medical device that will drive behavioural change and improve the lives of people with diabetes. Launching this year, the groundbreaking product will positively impact those who suffer from diabetes, caregivers, the medical research community and society as a whole. By combining a cloud-based health-analytics service solution ("the benefit loop") with an insulin-injection device and companion app for patients and health care professionals, this device will manage the disease effectively using real-world data to improve outcomes. The future is bright for patients and health care designers, a truly exciting place to be. You get to flex your imagination in ways we never thought possible just a few years ago.

Born in Stockholm in 1973, Boije is the global vice-president of health care at Veryday and the president of the company's New York branch. He has a degree in industrial design from Konstfack University and a degree in business management from Berghs School of Communication, both in Stockholm.



The TA01 allows for the rapid measuring of intra-ocular pressure without the need for anaesthesia. Designed by Veryday for Icar.