The ambiguity of self-tracking for health

As society faces challenges in healthcare such as spending and changing disease patterns, healthcare stakeholders are advocating self-tracking as a part of the solution. Besides curtailing the rising costs, this could lead to a future healthcare system in which people are better informed, more engaged and more in control of their health. However, opponents of this more preventive, personalized and participatory form of healthcare claim the exact opposite. They predict new surveillance mechanisms will drill bodies, are worried about the downside of more responsibility and argue it will cause an impoverished relationship to one’s self.

Our observations

- **Global healthcare spending keeps rising**, with a projected annual rate of 5.4% between 2018-2022. In terms of GDP, we see the same pattern: rising percentages without any sign of a reverse trend. Unfortunately, higher spending doesn’t naturally correlate with better healthcare. The rising costs are partly due to increasing labor costs, inefficiencies and misaligned incentives in the value chain, and partly due to demographic changes and a different disease pattern.

- **Increasing chronic diseases and an aging society** demand different health management, more centered around long-term engagement and the continuous management of health than is common in a transactional business model focused on therapy. In this regard, **self-tracking and self-monitoring tools are essential** and could be of great help to speed up trends such as “aging in place”. However, because self-tracking is strongly dependent on the digital literacy and willingness of the elderly, technological enablers aren’t sufficient; a socio-cultural transformation is needed as well.

- One out of five people in the U.S. tracks their sleep behavior, making it a very interesting market for wearables. The obvious goal is to achieve better sleep. However, **a recent study** shows it has also led to a new disorder of becoming obsessed with a perfect night of sleep. Researchers call it “orthosomnia”. They observe there is a growing number of people who rely solely on the data and convince themselves they have a sleep disorder, **even when this might not be the case at all**. Instead of listening to their body, they rely completely on their activity trackers.
Connecting the dots

Given the worldwide healthcare crisis, a new vision and paradigm for healthcare seem necessary. Many healthcare providers and stakeholders believe the solution is already here. For them, a shift towards a more personalized, preventive, and participatory healthcare system represents the potential to tackle future challenges of healthcare. The promises are clear: curbing the rising costs and making them manageable while improving healthcare through a more patient-centered approach. They all refer more or less to a world in which individuals are more informed, more in control and more engaged in their health than ever before. Therefore, according to Deloitte’s latest healthcare outlook, this shift is currently seen as an industry imperative. One of the main aspects of this new paradigm is self-tracking for health. Self-tracking healthcare, personalized healthcare, mHealth or digital health are all closely related to each other and somehow used interchangeably. They are all closely related to each other and somehow used interchangeably. They are at the core of a larger shift in healthcare towards a more personalized, preventive and participatory healthcare system. The potential to tackle future challenges of healthcare through a more patient-centered approach is a key aspect of this shift. It is not difficult to recognize similarities to the second great promise of self-tracking: improved patient comfort, etc. Following this line of thought, proponents argue that self-tracking amplifies self-reflectivity to a narcissistic level, at which we lose our regard for the collective nature of health or even society in general. The third discussion centers around knowledge. The polarization is between greater self-knowledge vs. alienation. In this debate, the value at stake is authenticity. Proponents argue the heterogeneous sources of data collected could help assemble a complete and more holistic image of someone. Self-tracking opens the door for unperceivable patterns and correlations related to specific habits. They often refer to the famous motto of the Quantified Self movement: “self-knowledge through numbers”. They exhibit a general tendency to mistrust “feelings”. In opposition to measurement and mathematical principles, human perception is full of mistakes and biases. Relying on our senses and intuition is far inferior to the precision and certainty of numbers. Therefore, advocates strongly believe that self-tracking leads to new, better and more precise insights about our inner self. However, critics worry that precisely this quantification and obsession with data is inherently a reduction of a complex phenomenon such as health. Consequently, contrary to greater self-knowledge, the quantification and datafication of health doesn’t necessarily alienate us from the self and the body. Moreover, the applications and numbers related to self-tracking have a performative nature. Scientifically proven or not, eventually users perceive the information as a direct and complete representation instead of a crude reflection of their health (e.g. actionless sleep is 100% sleep and therefore perceived as “healthy” sleep, although this isn’t scientifically proven). As we can see, Sharon compromises the scientific debate around three core values: autonomy, solidarity and authenticity. Within every discussion, there are good arguments on both sides, and both sides appeal to the same value. Therefore, critics worry that precisely this quantification and obsession with data is inherently a reduction of a complex phenomenon such as health. Conversely, proponents argue that self-tracking amplifies self-reflectivity to a narcissistic level, at which we lose our regard for the collective nature of health or even society in general. The third discussion centers around knowledge. The polarization is between greater self-knowledge vs. alienation. 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Implications

• Personal doctors will play an important role in making sense of tracking data and embedding it in the larger context in which physical, psychological, environmental and social aspects are also taken into account.

• As self-tracking becomes more widespread, and personal data can be used (albeit anonymized) at an aggregated level to uncover societal health patterns, there is the possibility that self-tracking and data sharing for the collective good will become an imperative.

• Insurers will also be confronted with the tension between the individual vs. the collective when dealing with self-tracking and data. Formerly, everyone was more or less treated equally as there was little basis for risk segmentation. However, with the availability of data, the possibility emerges to identify different risk groups among insured, thus potentially eroding principles of solidarity.