



# Show Me the Money



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# Chronically Healthy, Digitally Sovereign and Sufficiently Successful - On the Way to the Prevention Age?

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It is time to rethink the healthcare system from the principle of digital prevention. Value creation in healthcare should not be geared to diseases, but to prevention. Prevention should be the priority. Only in this way, we achieve crony health, digital sovereignty and sufficient success for all.



## Key Points

- It is a general error of the modern world to repair rather than anticipate and avert worse i.e. to prevent.
- Economically-driven societal designs are relying on the costliest problem-solving imaginable.
- Precision prevention addresses everyone and does so in an educational way, at least if ethically responsible strategies and - in the case of for-profit offerings - corresponding clean business models are in place.
- Any sustainable society must be prevention-centred and health-oriented.

## On the Threshold

It is a general error of the modern world to repair rather than anticipate and avert worse, or in other words, to prevent. The much-cited digitalisation does not really change this circumstance, although the prognostic power of mass data systems and the algorithms analysing them are praised again and again in various social contexts such as the economy but also medicine.

We are guessing more and more about a future that, at the same time, we are less and less able to shape despite this plus in digital foreboding competence. At the same time, the world is reaching a tipping point of complexity, the patterns of which can no longer, or soon will no longer, be adequately grasped by human cognition and emotion in the sense of problem solving. Which in turn means relying more on digital intelligence than on natural intelligence. And so on.

In doing so, we (essentially meaning the Western, economically-driven societal designs, and today, by far, this does not only include western states) are relying on the costliest problem-solving imaginable, instead of simply living more foresightedly

together (prevention priority/sustainability), wanting to learn more (sovereignty/autonomy) and generally cutting back a little on production and consumption (sufficiency). So, in the broadest terms, we are on the cusp of an old age of therapy in a new, digital guise, or the dawn of a new, digital values oriented age of prevention. Our generation can still decide, maybe 5-10 or even 10-20 years, but certainly not delegate it to future generations. They will only be left with the rest of the world and society that we will leave behind.

For ethical reasons, a generation-appropriate solution to the problem of the future can neither be dispensed with, nor can it be resolved unilaterally in favour of living generations; whereby large parts of our world already have to live today in the way that the other parts are likely to have to live in the future. To grasp this view argumentatively, rather soft, relativistic ethics are of little use. Only universalist, even cognitivist approaches can help - any ethics that depends on more than itself as a corrective must buckle before the challenges of the future. Yet it is precisely these challenges that are its core business. Ethics cannot be made; it does not follow the logic of economics,

digitalisation or anything else in the world. On the contrary, it should enable us to make these things in the world positive and welcome. But not by exhorting in a moralising way that is distant from the world, by including the facts as such in ethical deliberation; not as justifications - this would be categorically false, but as necessary premises alongside normative considerations. This is not identical with a homage to the supposed normative power of the factual - not everyone can objectively make everything possible, but what is possible must precisely not be dismissed merely subjectively. Without ethics it is not possible; it is the guiding discipline for problem solving. Law can only help where it is itself ethically identifiable, as is often the case in respectable constitutional states (which, however, have not always been such historically). Economics, like its technology sister digitisation, is not normatively active - and thus not per

economic, and therefore social) challenges. The “bias” has many guises in digital prevention, from discrimination to automation to misincentivised consent formats (Friele et al. 2020). These gestalts are familiar from mainstream discourses around the ethics of digital medicine and the health economy (Heinemann and Matusiewicz 2020; Heinemann 2019). And yet, what is addressed with digital prevention in addition to diagnosis, therapy, and follow-up is that preventive measures could potentially lead to covert disadvantages, as it were, for certain groups of people with certain diseases with the corresponding data-driven insights. The preventive successes of the one could become the therapeutic limitations in terms of funding of the other. But only if such secondary use is not clearly restricted (which Art. 9 I GDPR does by way of example).

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se “bad”, “evil” or the like. But should be employed with moral prudence, and above all with a view to a sustainable, prevention-oriented society. For how else could a morally acceptable future succeed?

### Digital Medicine As Ethically Grounded, New Medicine and Prevention Utopia

Now just with medicine, in the broader context of “health” as a whole, a very special form of thinking and acting is involved. The fact that the “world” itself, or at least “societies”, are in need of “healing” may at first sound unconventional only to a theologically trained ear. What is meant here, however, is that the basic principles of medicine, which are ethical principles, also offer honey as a guiding principle for a broader perspective, i.e. one that goes beyond medicine and, in the broad sense, healthcare itself. This applies especially for digital medicine, for ethically founded, new medicine with a focus on “prevention”.

It is true that digital prevention cannot succeed without data and its smart use. “Prevention is generally understood to mean measures aimed at reducing the possibility of health damage occurring or damage that has already occurred. Digital products and services can contribute to prevention in different ways” (Friele et al. 2020; Hurrelmann and Laaser 2006). Prevention, in form of the increasingly available precision prevention, thus occupies a special position in the discourse to date. For both from the point of view of efficiency and from the point of view of effectiveness, the concept of digital prevention, sharpened in the self-care approach or in You-Hospital, appears *prima facie* attractive (or disturbing, as the case may be). However, even without the exaggeration offered here towards a general social vision, it must deal with many ethical (but also legal and

major ethical and legal challenges arise in terms of protecting fundamental rights and freedoms and socially relevant values. In addition to the health of the individual and society, these include (informational) self-determination, privacy, solidarity and justice” (Friele et al. 2020; Data Ethics Commission 2019). Beyond Friele et al., one could ask with a slightly different accentuation which ethically fundamental arguments make prevention in particular the guiding paradigm of digital medicine and thus only an appropriately positioned digital transformation of medicine can be designated as welcome. Further questions regarding the ethical dimensions of implementation as well as the scientific-logical preconditions such as the evidence of prevention (Fischer 2020) and many other normative as well as descriptive considerations and discourses are, of course, to be added. If this steep thesis that these considerations could ultimately be productively transferred from medicine to society as a whole (which is only asserted here, far from being demonstrated) were correct, an even greater potential for impact than already exists today could be tapped from medicine. Medicine would not wait to shut the stable door after the horse has bolted, but clearly before, in the “coming to the situation” would lie the actual point.

What medicine is able to achieve digitally as precision prevention as ethical-digital medicine can perhaps make clear overall what would be possible. Because not everyone wants to be driven autonomously (basically heteronomously), but everyone wants to be, become and stay healthy. And always, throughout his life - not just as a young person. Life-long prevention. Separating the world into “sick” and “healthy” requires the conceptual narrowing of prevention to interruption of illness. “The [...] strict separation of “healthy and sick” in one person, on the other

hand, has given way, especially in older patients, to a grey area of documented diagnoses without disease value, chronic illnesses without symptoms, up to permanent suffering and need for care as visible consequences of experienced illness” (Anders 2015). In old age, digital prevention will become increasingly relevant, despite all the challenges of the silver digital divide, driven by an irreversible demographic development (fewer, older, more diverse) - how else should the economic and social consequences in areas such as long-term care of a chronified sub-population be managed in such a way that “life” remains “worth

addiction to exercise, with vital, gene-analytical and/or other phenotypical and core medical data, prevention can be optimised tailored to each individual. Also in the context of old and new work, a “BPGM” (company precision health management) is certainly welcome in companies and among employees by principle. From health promotion to primary, secondary and tertiary prevention, the diverse approaches range, more networking (also with ePA) makes sense. If you look at the “First Prevention Report in accordance with § 20d para. 4 SGB V” of the “National Prevention Conference” (which received the mandate

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living”, largely autonomously, even in old age?”

Precision prevention addresses everyone and does so in an educational way, at least if ethically responsible strategies and - in the case of for-profit offerings - corresponding clean business models are in place. The threshold of participation, education and strengthening of the health data sovereignty of patients must decrease overall in order to avoid a digital health literacy divide and vice versa. Only an inclusive digital transformation of prevention can be convincing. “In the future, ‘health’ and ‘disease’ will become new or at least adapted terms to be grasped, which also make a new health literacy classification in the digital necessary. Not only more and more digital competencies will become important in medicine and the health industry (and indeed also for the ‘professionals’) (Heinemann 2020), but digital medicine itself offers, in addition to ethical risks, very many opportunities, especially for all those who are able to develop a certain literacy in this context. For those who fail to do so, many doors to new precision prevention options, therapy options, financing channels, etc. will not open in the first place. This triple divide appears to be an essential challenge: the general public in the sense of general digital health literacy, moreover the participation in new opportunities in medicine in particular, as well as the professionals, who could either develop game changing competencies themselves or be left behind” (Heinemann 2021).

Ultimately, precision prevention, data-preventive medicine, will work. At least if it prioritises evidence and methodological credentials, which is also necessary for this form of complex intervention (Fischer 2020). Cyberchondria is not a desirable consequence of persistent self-tracking, and “guessing with data” is not a smart approach for less-smart “health” apps (whether as unregulated apps or as regulated medical devices). It would make sense for ultimately all digital prevention products and services to have evidence of efficacy and safety, even if they are - as is almost always the case currently and “only” - about behavioural prevention. From obesity, diabetes and

for strategy development in 2015 with the Prevention Act) from mid-2019, it outlines actors of prevention, health, safety and participation promotion”, and you immediately get an idea of how the system complexity often makes good ideas difficult to implement, and on the other hand that the private sector and wider society play no role here. Which is certainly a problem, since the social funds can neither restrict nor should restrict private consumption, social disadvantage etc. in a strong sense (loc. cit., p. 257). Thus, prevention is not that simple as it may sound either. “Eat healthy and exercise! Be nice and friendly to people and behave!” - basically, grandma was already a prevention coach.

### How Dare We!

Understood in this sense, digital precision is a utopia. If it wants to be more (which it can and thus should, the reverse does not apply) than a renewed - and medico-historically not new - further stage of harnessing technology in the orthodox mindset of “medicine”. In contrast, it would be better and ethically imperative (since it is objectively possible) to abandon chronic treatment in neo-feudally structured institutions, guided by an ethically based but economically reshaped (and therefore also not sustainably economically successful) and overly bureaucratized framework system, in favour of a better, digital, fairer medicine in a sustainable, sufficiency-successful and moderating overall context, which is organised and lived in a data-sovereign and partnership-based manner by professionals as well as the patients standing at the centre. Current discourses on systemic medicine (Schmidt 2021) make it clear within medicine, but also far beyond it, that there may well be a broad sense that “digitisation” in “medicine” is not sufficiently in-depth, is too technocratically conceived, and that the comprehensive change potentials of an overall systemic nature, such as those envisaged by the flagship initiative “Smart Hospital” in a certain reading (Werner et al. 2020), offer much more potential for impact.

Any sustainable society must be prevention-centred and

health-oriented. “How dare you!” (Greta Thunberg’s angry announcement in 2019 before the UN Climate Summit) ([youtube.com/watch?v=qHgKaDUiVhM](https://www.youtube.com/watch?v=qHgKaDUiVhM)) - how can we dare to talk about “future” with any conviction at all and at the same time not let the massive empirical evidence, ethical arguments and the daily growing suffering of more and more people become the principle of our decisions and actions?

Prevention for one’s own health is at the same time always prevention for the health of all and vice versa and in this sense, it is perhaps the highest solidarity that can be had at the same time at the lowest price. However, since human beings do not live on the basis of ethical (as well as economic) insight alone, but rather cling to the often unethical or even supposed benefit, ideas, initiatives, measures etc. that bring a high benefit to all, but at the same time do not bring at least a lower benefit to the individual - and vice versa - are quite regularly not a social success model.

We know that sustainability will only succeed as “sustainable sustainability” (Heinemann 2011), we know that it will not work without changes in consumerist lifestyles marked by renunciation (since efficiency is not enough, what matters is effective sufficiency), we know that health communism is neither just nor realistic, and we also know that without at least a sufficiently large proportion of prevention-centred people shaping their lives, it is five past twelve. Without health there is no sustainability, without sustainability there is no health.

And now? To develop prevention into a leitmotif of an open and successful society in the 21st century is perhaps a utopia without alternatives. There will be “illness”, but to expect a loss of freedom for the eHealth-self where this appears to be avoidable without major efforts is not completely unjustified and can still be shaped. For this is the concrete “how” that matters. Enlightened prevention is the means of choice - not the uncritical, data-forgetting banal use of all kinds of digital measuring devices on people, but the strengthening of digital health literacy for the sustainable development of a digital prevention lifestyle appropriate to the democratically secured form of government. Without encroachment, but also without recklessness at the expense of all.

At least the cost bearers have been dreaming this dream for decades, even in analogue form. So far, however, it has not really succeeded. This is also because the possibilities of marketing campaigns for preventive care, more sport, etc., which could not

be interpreted as a disruptive, patronising intervention, were rather limited, the benefits were already individually hardly directly tangible for too many - and the argument of solidarity with everyone simply does not hold water. In the digital world, different rules apply. Some of them are to be evaluated critically, others can be used wisely. For prevention that is perceived as a benefit, as an opportunity, as positive, that is data-based and therefore precise, and at the same time benefits public health in an equally data-based way, integrated models are still lacking. A sheer immense number of products, institutional activities of hospitals, health insurances, industry etc., governmental formats, research and much more do not shed light on the opaque health care system so far.

This requires a completely new approach to thinking about prevention. Digitally, ethically and critically. In other words, consistently aligning all strategies, measures and success measurements with the idea of precision prevention. Not so that we all become machines that live forever. Not so that we can carry out every overexploitation of ourselves in a controlled manner, but because digital prevention will be a decisive addition to the enlightened citizen in the 21st century, indeed it will co-constitute him. Because without this guiding principle, sustainability worthy of the name will hardly be possible. Where is the motivation to take seriously the ethically first-ranking right of future generations supposed to come from, if even the value of one’s own health is underestimated, and even more so the value of the health of others?

Only by rethinking the healthcare system from the principle of digital prevention. Value creation should no longer be geared to diseases, but to prevention. Medicine should no longer be oriented towards subjects, but towards the human system and ethics as a whole. Care should no longer be interpreted as a tension between the economic and the social, but as economically successful action that is only made possible by values. Thinking of prevention in terms of biographical dynamics, at every age. And much more. Only in this way can we all become and remain chronically healthy, digitally sovereign and sufficiently successful.

### Conflict of Interest

None. ■

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