



The Optimised Self: Patient autonomy in the artificial intelligence and genomics era

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The advent of artificial intelligence (AI), genomics, and biotechnology promises to revolutionize healthcare and usher in an era of unprecedented health, and therefore life, optimisation. However, this powerful trajectory towards optimisation, particularly when viewed through the lens of absolute informed consent, presents a profound ethical paradox. While seemingly enhancing individual autonomy by providing comprehensive information, the very nature of this technologically driven optimization may inadvertently degrade fundamental aspects of the human experience, most notably the capacity for genuine self-determination. This article will explore this critical tension, examining the philosophical underpinnings of autonomy and the potential consequences of a technologically optimized existence on what it means to be human.

The principle of informed consent in healthcare is traditionally understood as a cornerstone of respecting patient autonomy. Rooted in the Kantian imperative to treat individuals as ends in themselves, informed consent mandates that patients be provided with adequate information, make decisions voluntarily, and possess the capacity to do so. Immanuel Kant's philosophy defines autonomy as self-governance, where individuals act according to rational will and self-legislated moral laws, free from external influences or desires¹. Traditionally, informed consent empowers patients to make choices aligned with their values and preferences, even if those choices do not conform to what might be considered the most medically advantageous option.

However, the increasing sophistication of predictive technologies powered by AI, genomics, and biotechnologies is fundamentally altering the landscape

of agency. As these technologies become more adept at analysing vast amounts of personal data, the consequences of health-related decisions become increasingly predictable. This moves beyond simply informing individuals about potential risks and benefits; it begins to reveal an 'optimal' path with a high degree of certainty. This implicit knowledge, while seemingly beneficial, can exert a subtle yet powerful pressure on individuals to make the 'good' or 'optimal' decision. Even without overt coercion, the weight of highly probable outcomes can steer individuals towards choices that align with technological predictions, potentially overriding their personal values or their own understanding of a fulfilling life. The contradiction becomes apparent, as the revelation of a singular optimal path through predictive analytics risks undermining Kantian autonomy, which emphasizes the freedom to choose based on one's own rational deliberation, even if that choice deviates from externally defined optimal outcomes². The very notion of 'absolute' informed consent becomes questionable when technology offers near-perfect foresight, as true autonomy necessitates the possibility of making choices that are not necessarily the most efficient or health-maximizing according to external metrics.

Furthermore, technology's inherent focus on quantifiable metrics, such as biomarkers, genetic predispositions, and statistical probabilities, may lead to a constricted definition of "optimal health". While these metrics provide valuable insights, they risk overshadowing the subjective and experiential dimensions of well-being, including quality of life, emotional fulfillment, and personal satisfaction³. Health, from a broader perspective, can be viewed as a dynamic harmony integrating diverse elements (physical,



mental, social, and even spiritual) rather than a mere state of perfect, measurable parameters⁴. By prioritising quantifiable data, technology might inadvertently devalue aspects of health that are harder to measure but are crucial for a rich human experience. This could foster societal pressure to conform to a technologically defined "optimal" state, potentially marginalizing individuals who prioritize other facets of well-being. Technology's impact is neither predetermined nor value-neutral; our values and interpretations are central in shaping its influence on our comprehension of health and our decision-making processes.

Philosophical arguments have long highlighted the intrinsic value of struggle, challenges, and even suffering in fostering personal growth, resilience, and the development of a personal philosophy. Similarly, navigating uncertainty and making choices without perfect information is a fundamental aspect of human agency, promoting critical thinking and adaptability⁵⁻⁷. Additionally, the pursuit of optimal health through technology might also inadvertently lead to an emotional flattening, where the full spectrum of human emotions, including negative ones, are viewed as undesirable and something to be eliminated. Moral philosophers assert that personhood is inextricably linked to emotionality, and emotions are not mere impediments to rational decision-making, but play a vital role in guiding our choices, reflecting our values, and contributing to a comprehensive human experience^{8, 9}.

The trajectory of technological advancement in healthcare suggests a move beyond evidence-based medicine towards a life where everything is increasingly quantifiable, risk-assessed, and managed through technology: a phenomenon that could be termed "*evidence-based life*". A constant push to quantify many aspects of life, from daily steps, to activity, to social encounters, generates a constellation of rich and meaningful data which can act as the foundation to measure and suggest improvements. This trend raises concerns about the potential over-medicalisation of everyday life, as technology blurs the boundaries between health and well-being, potentially leading to heightened anxiety and a constant state of monitoring and intervention. This relentless pursuit of optimization and risk management might also diminish spontaneity, natural human experiences, and the acceptance of life's

inherent uncertainties. If every choice can be optimized with predictive analytics, aiming to improve our lives, does this lead to a form of Kantian automata, where our actions are predetermined by data rather than genuine autonomous will? If personhood is defined, at least in part, by the capacity for autonomous decision-making, including the freedom to make 'sub-optimal' choices, then a relentless drive towards optimization that eliminates this freedom might fundamentally alter our understanding of what it means to be a person.

While AI, genomics, and biotechnology offer remarkable potential for health improvement, their integration into healthcare demands careful ethical consideration. The pursuit of absolute information and prediction, facilitated by novel technologies, risks creating a paradox where the abundance of predictive data subtly undermines the very autonomy it intends to uphold.

In 1963, William Bruce Campbell wrote the often-misattributed quote, '*Not everything that counts can be counted, and not everything that can be counted counts*'. Emphasis on quantifiable metrics may narrow our understanding of optimal health, neglecting subjective well-being and the inherent value of human experience, including struggle and uncertainty. Increasing medicalization of life could diminish spontaneity and our capacity to navigate life's inherent complexities. Ultimately, the future of healthcare in this technological age necessitates a human-centered approach that prioritizes autonomy, fairness, transparency, accountability, and the enduring importance of human connection. Ongoing philosophical reflection and societal dialogue are crucial to ensure that these powerful advancements serve to enhance, rather than degrade, the richness and meaning of the human experience.

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