Moonshot Dialogue: The Future of AI in Healthcare and Cutting Edge Digital Health Technologies*

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1. Introduction

As societies around the world are grappling with the effects of aging populations, rising rates of chronic diseases, and overstretched health systems, the deployment of artificial intelligence (AI) in healthcare has emerged as both the beacon of hope but also as subject of close scrutiny. The promise of AI-powered digital health technologies to transform care delivery, enhance diagnostic precision, and improve outcomes is compelling, particularly in a context where progressive neurological disorders, cardiovascular diseases and cancer are expected to rise in prevalence. Yet, this transformation is unfolding against a backdrop of the need for a rigorous regulatory oversight, ethical deliberation, and a determined push to set global standards for responsible innovation.

Global healthcare systems are under acute pressure. As life expectancy increases and birth rates decline, a growing elderly population is placing unprecedented demands on healthcare and social support structures. The economic impact is twofold: direct strain on public health infrastructure and indirect stress on working-age populations who must simultaneously contribute to the economy and care for aging family members. In this landscape, AI offers a path toward systemic resilience.

During the DigiHealthDay's Moonshot session, the participants were unanimous that AI can dramatically improve efficiency and scalability in clinical care. From early diagnosis of cancer through breakthrough drug discoveries, AI enables faster, more personalized interventions. Digital tools that integrate data from wearables, genomics, and medical histories allow for real-time health monitoring and personalized treatment plans, potentially reducing hospital admissions and healthcare costs over the long term. Moreover, AI has the capacity to shift healthcare from reactive to preventive, an essential evolution that the Nordic countries are embracing for managing population-wide health challenges as explained by Bogi Eliasen, Director at the Copenhagen Institute of Future Studies and one of the frontrunners of the Nordic Health 2030 Movement initiative. In theory, this should relieve some of the economic burden by extending the independence and productivity of aging citizens while alleviating the pressure on healthcare professionals.

Despite its potential, the integration of AI into healthcare is not without risks, and the European Union (EU) is taking a notably cautious and ethical-first approach. Concerns around algorithmic bias, transparency, accountability, and data privacy are especially pronounced in health contexts where lives are at stake. Much like the impact of the EU's General Data Protection Regulation (GDPR) on global data privacy standards, the EU aims to establish global standards for AI in healthcare through its recently entered into force Artificial Intelligence Act (AI Act). The goal is to create trust in AI-powered health solutions, and therefore, balance innovation with responsible deployment.

As a reminder, the EU's AI Act designates healthcare-related AI systems as high-risk, subjecting them to rigorous regulatory requirements. These include comprehensive algorithm documentation, robust bias mitigation strategies, and mandatory human oversight in clinical decisions. Therefore, when participants were asked whether AI can replace doctors in the future, from a regulatory point of view,

**DIALOGUE – MOONSHOT: The Future of AI and Cutting-Edge Digital Health Technologies. Hosts: Angela Arendt (FTI Consulting, Germany) & Prof. Rajendra Gupta (Digital Health Academy, India). Speakers: Pilar Fernández Hermida (i-Expand, UK/UAE), Philippe Gerwill (Switzerland), Bogi Eliasen (Denmark), Lars Lindsköld (EFMI, Sweden).*

this possibility was dismissed. While these measures are designed to ensure patient safety and foster public trust, informal discussions have surfaced concerns that such strict oversight could impede the pace of AI adoption in healthcare, especially in comparison to more flexible regulatory environments in the United States and China. Albeit AI replacing doctors is a remote reality, doctors who work with AI will replace those who do not work with AI, as expressed by Philippe Gerwill, a digital health humanist and futurist based in Switzerland. Therefore, AI should be deployed in a manner that both meaningfully eases the burden on an already overstretched healthcare workforce and simultaneously promotes greater AI literacy and explainability across the healthcare system.

In conclusion, the future of AI in healthcare centers on the ability to navigate a delicate balance: harnessing transformative potential while safeguarding ethical standards, equity, and trust. The healthcare systems that succeed in ensuring regulation does not become a barrier to innovation, while still upholding patient safety and supporting workforce efficiency, will be the ones best positioned to truly unlock AI's transformative potential.