



Digital Health: AI and Emerging Technologies in Health Care

Digital technologies can improve health care by empowering patients, expanding access, and improving outcomes. Yet health care has adopted these tools more slowly than many other industries. In this course, Digital Health, learners will use practical frameworks for thinking strategically about digital solutions, how to design and implement them within health care’s unique culture and ecosystem, and navigate the needs of multiple stakeholders.

Modules	Case Studies	Takeaways	Key Exercises
Module 1 Introduction to Digital Health and AI	<ul style="list-style-type: none"> • Google Health • IeDA (Integrated e-Diagnostic Approach) • AI-facilitated patient diagnostic journey 	<ul style="list-style-type: none"> • Understand that effective digital health solutions solve an unmet clinical need (market pull), rather than using technology just because it’s new (technology push). • Describe how health care culture, clinical workflows, and patient-clinician relationships can slow the adoption and implementation of digital tools. • Learn the basic concepts of AI, including the lifecycle of an AI model. • Identify how data generates value, and the key challenges to realizing that value. 	<ul style="list-style-type: none"> • Identify major technological developments in health care throughout history. • Identify barriers to care and propose digital approaches to addressing them. • Follow a patient’s diagnostic journey. • Evaluate digital tools in real-world health care scenarios, including AI-enabled diagnostics and public health applications. • Apply strategic frameworks to assess unmet need, devise a data strategy, and the feasibility of hypothetical digital health solutions.
Module 2 Patient Perspective	<ul style="list-style-type: none"> • Omada Health 	<ul style="list-style-type: none"> • Explain why centering the patient experience is essential for creating value with digital health solutions. • Use human-centered design principles to address unmet medical needs and improve the patient experience. • Learn how “value” varies across stakeholders and what motivates each group. • Understand how digital solutions can advance better outcomes and a better patient experience, while lowering costs. • Assess how digital solutions can improve access while also introducing new barriers to care. 	<ul style="list-style-type: none"> • Recognize barriers to care in a simulated clinical interaction and identify opportunities for digital solutions to mitigate them. • Apply design thinking tools to develop a digital solution. • Identify factors that may prevent patients from successfully using a digital solution. • Explain key issues related to patient control of and access to their health data. • Assess how well hypothetical startups address unmet patient needs, create value, and implement feasible solutions.

Modules	Case Studies	Takeaways	Key Exercises
Module 3 Physician and Enterprise Perspective	<ul style="list-style-type: none"> Ambient scribe technology SynPlan WebIF 	<ul style="list-style-type: none"> Understand that digital tools create value for clinicians only when they fit clinical workflows and reduce the burden on clinicians rather than adding to it. Understand AI as augmentation, supporting (not replacing) clinicians in decision-making and care delivery. Learn how digital tool success depends on integrating with existing infrastructure, resources, and workflows. 	<ul style="list-style-type: none"> Analyze a patient visit from the clinician's perspective. Identify and compare the needs of key stakeholders involved in an enterprise digital health solution. Evaluate the advantages and limitations of AI tools within health care workflows. Compare hypothetical startups from the perspective of a clinician or health system administrator.
Module 4 Business Perspective	<ul style="list-style-type: none"> Click Therapeutics Evidation Health 	<ul style="list-style-type: none"> Learn how digital health business models align buyer goals (lower costs, healthier populations) with patient needs (convenience, better outcomes). Explore key factors such as regulatory approval, payment systems, and enterprise sales. Understand the relative advantages of different business models for patient-facing solutions. Discover how digital health companies adapt capabilities and business models over time. Explore software as a medical device (SaMD) and regulatory approval pathways. 	<ul style="list-style-type: none"> Identify key strengths and tradeoffs across digital business models. Map stakeholder motivations in a case study. Assess regulatory implications and explain how regulation varies by type of digital health solution. Evaluate startup viability by comparing two hypothetical startups on business model fit, stakeholder value, and the ability to navigate regulatory challenges.
Module 5 Transforming Care Delivery	<ul style="list-style-type: none"> Mayo Clinic Platform 	<ul style="list-style-type: none"> Understand the health care industry's shift from a hospital-centered model to a patient-centered model. Explore how innovators use digital health to enable care beyond the clinic and support patients as active partners in their care. Navigate how the health care workforce, care teams, and roles must evolve to support the adoption of digital health tools. Consider how new care models can address the digital divide as well as cultural relevance and accessibility. Understand ecosystem-wide transformation and how digital tools drive broader system changes. 	<ul style="list-style-type: none"> Complete a digital health design challenge to break functional fixedness. Compare a disjointed care scenario with a more integrated, tech-enabled, interoperable approach. Evaluate how digital solutions could change care delivery in the future.

Learning requirements: In order to earn a Certificate of Completion from Harvard Online and Harvard Business School Online, participants must thoughtfully complete all six modules, including satisfactory completion of the associated quizzes, by the stated deadlines.