



When digital health transformation outpaces educational capacity in health professions education: a policy-practice gap

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Digital health has become the most dominant policy narrative shaping contemporary healthcare.¹ National strategies routinely emphasize artificial intelligence, virtual reality, big data analytics, electronic health records, and learning health systems as essential components of future-ready healthcare delivery. These policies are ambitious, technologically sophisticated, and often framed as inevitable progress. Health professions education (HPE), however, occupies an uneasy position within this transformation. It is frequently expected to respond rapidly to policy agendas, to align rigidly with curricular structures, and to operate within limited faculty capacity and professional norms.² This results in a widening gap between the ever-evolving mandate of digital health policies and the medical academia's capacity to implement these technology-driven policies in medical education.

The disconnect between medical academia's ability to deliver digital health curricula and the institution's expectations is frequently attributed to faculty reluctance, cautious learners, or slow-moving institutions.³ Educational innovation is typically embedded as tools, platforms, and learner-facing technologies. In contrast, faculty are looked at as passive conduits for implementation rather than as central agents of change. It's a fact that the medical faculty determines how digital health is interpreted, assessed, and legitimized within educational avenues. If faculty are underprepared, innovation would stall, not because of technology failure, but because educational capacity has not been reciprocally enhanced and consolidated.

Digital health policies are novel instruments that set expectations for data use, clinical decision-making, patient engagement, and critical reflections.⁴ However, these policies rarely align well with the faculty's capacity to deliver, leaving faculty to reconcile new digital workflows within the existing teaching models and assessment frameworks on an individual basis. This reconciliation is neither intuitive nor trivial.⁵ On the other hand, current faculty development approaches are poorly equipped to align faculty skills with the expected level of digital proficiency. Mostly, institutional initiatives focus on short workshops, technical demonstrations, or targeted training lessons to enhance the faculty's digital skills. While such efforts may enhance familiarity with the system, they rarely address genuine educational needs. Faculty are not only users of digital health technologies; they are sense-makers who translate policy into practice. Without opportunities to critically examine how digital health reshapes knowledge, authority, and uncertainty, faculty may succumb to incomplete adoption or silent disengagement.⁶

Digital health policies often emphasize efficiency, data-driven decision-making, and standardized workflows. Medical education assessments, however, continue to encourage individual performance, professional competencies, and observable behaviours in controlled settings.⁷ Typically, faculty develop assessment designs to evaluate clinical reasoning, judgment, and professionalism, yet there is no guidance on how these constructs manifest in digitally augmented environments.⁸ This results in an educational disconnect: learners engaging with digital tools in medical

education but being assessed using frameworks that predate these tools. Consequently, faculty who are uncertain about expectations may either ignore the digital persona altogether or reduce it to checklist compliance.

The aftermath of the misalignment between faculty capacity and expectations extends beyond pedagogy. We observe that digital health transformation increasingly challenges faculty identity. Traditional markers of faculty expertise, such as pattern recognition, predicted academic achievements, and diagnostic authority, are being reprogrammed by algorithms, decision support tools, and data dashboards. For many faculty, this shift represents an implicit threat to their professional authority.⁹ This phenomenon engenders resistance and stereotyping as rational responses to the evolving landscape of HPE.

From a different perspective, digital health tools are not neutral and potentially carry safety and equity concerns.¹⁰ During the development of AI-driven software, the tool embeds assumptions, biases, and values that shape clinical decision-making. Faculty who lack critical digital literacy may inadvertently exaggerate inequities, over-trust algorithmic outputs, or fail to recognize ethical risks. Digital health policies may mandate AI adoption, but without faculty able to teach critical appraisal, contextual judgment, and moral reasoning, learners are poorly equipped to navigate these untapped complexities.¹¹

Structural constraints during the delivery of modern medical education also reinforce the policy-practice gap. Faculty development is often under-

resourced, poorly incentivized, and peripheral to institutional reward systems.¹² To add to the complexity, promotion criteria continue to prioritize research output and clinical productivity, while educational leadership in digital health remains undervalued.¹³ Faculty are expected to innovate and generate creative ideas in their “spare time,” which does not resonate well with the high-pressure clinical environment. Without protected time and institutional recognition, even motivated faculty struggle to engage meaningfully with digital health education.

There is a need to reframe faculty development initiatives to leverage digital health infrastructure as a way forward. This means moving beyond episodic, random training toward longitudinal faculty development that addresses not only how to use digital tools, but also how to teach, assess, and lead in digitally mediated environments. Faculty development should be aligned with institutional digital health strategies, accreditation standards, and workforce planning. Faculty development initiatives should support faculty in preserving human judgment, empathy, and ethical responsibility in HPE.⁸ If faculty development remains under-resourced and disconnected from policy, digital health innovation in HPE will remain inconsistent. When digital health transformation advances faster than the educational capacity of medical academia, a critical policy-practice gap would emerge. Ambitious digital health policies wrongly assume a sustainable level of faculty readiness and pedagogical expertise that has not been systematically developed, leaving educators struggling to translate the institution's vision into practice.

In conclusion, the future of digital health in HPE will depend not only on technological advances, algorithms, or policy directives, but also on the capacity of institutions to prepare and support their faculty. As digital health continues to transform healthcare delivery, educators must be equipped with the skills to teach, assess, and critically appraise digital technologies in clinical practice. Ultimately, the success of digital health transformation will be

determined not by the technologies adopted, but by how effectively institutions invest in the educators responsible for translating innovation into meaningful learning.

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CONFLICT OF INTEREST

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