

AN ESSAY ON HEALTHCARE LEADERSHIP · 2026

AI Is Not a Product. It's *Infrastructure*.

*And that changes everything - for hospitals, for boards,
and for the policymakers who shape the system around
them.*

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29 APRIL 2026

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Omnia mutantur, nos et mutamur in illis.

Everything changes, and we change with it.

For more than three decades, I have worked at the intersection of healthcare innovation and digital transformation - founding innovation labs, helping to lead organisational restructuring at major medical centres, and watching countless attempts to bring new technology into the way we deliver care. From that vantage point, I have come to one firm conviction: most organisations are still asking the wrong questions about artificial intelligence.

The dominant narrative still treats AI as a new software category - something to procure from a vendor, deploy in a department, measure ROI on, and slot into existing systems. This view has produced thousands of pilots, hundreds of case studies and research papers, and surprisingly modest impact on actual organisational performance. Healthcare adopts AI at a higher rate than most sectors: 78 percent of organisations now use it, yet nearly two-thirds have not scaled it across the enterprise.¹

That is not a technology problem. It is an organisational one.

We are at an inflection point at which organisations must reimagine themselves - not around AI specifically, but around what AI forces us to confront about how we organise, decide, and operate.

And this realisation arrives at a moment when external forces - technology companies expanding into every sector, competitive pressure, regulatory complexity, and let us not forget geopolitical headwinds - are driving transformation whether we are ready or not. The organisations that will thrive are those that understand AI not as a tool to bolt onto existing systems, but as a force that requires a complete reimagining of organisational DNA.

Healthcare, paradoxically, is best positioned to lead. Not because the sector has embraced technology with enthusiasm, but precisely because it has not. The regulatory environment, patient-safety imperatives, and clinician scepticism that slow healthcare adoption are, in fact, design requirements. Honoured thoughtfully, they produce AI infrastructure more robust and more trustworthy than what other sectors are building.

The infrastructure realisation

"AI is no longer software. It is enterprise infrastructure," *CIO Magazine* recently observed. This is not semantic wordplay. It is a recognition that AI now underpins how organisations function at every level, much as electricity once did for the factories of the Industrial Revolution.

When something becomes infrastructure, the questions change. You no longer ask, *Should we adopt it?* You ask, *How do we build our future around it?* You stop hunting for departmental quick wins and start redesigning the operating model of the whole organisation.

Consider the evidence: organisations that allocate at least 5 percent of their total budget to AI are significantly more likely to report positive returns across productivity, operations, and innovation. Critically, those returns do not come from isolated initiatives. They come from organisations that have made the infrastructure shift at the enterprise level.

The gap between adoption and transformation

We are in a curious moment. According again to Deloitte's *2026 State of AI in the Enterprise*, 78 percent of organisations are using AI - a number that sounds like universal adoption. Look closer, and a more troubling picture emerges: nearly two-thirds of those organisations have not yet begun to scale AI across the enterprise.

What is happening? Most are still treating AI as a software project - pilots here, isolated use cases there, a thin AI layer added on top of legacy systems and outdated, often scattered governance. It is like trying to fit a UK plug into a Dutch power socket. The power is there; without the right infrastructure, nothing works.

The real challenge is not technological. It is organisational. As my late colleague Rene Bleeker argued years ago in our discussions about the future hospital at Radboud University Medical Center, any transformation strategy must rest on three things: **bricks, bytes, and (human) behaviour**. AI transformation requires all three. Most organisations are still addressing only one or two.

Why a corporate and societal approach matters

Here is what distinguishes organisations that truly transform from those that merely implement: they treat AI transformation as a society-wide challenge, not a departmental one.

A recent systematic literature review of how AI is reshaping sociotechnical systems put it bluntly: AI is not merely optimising processes or boosting efficiency. It is recalibrating social hierarchies, reshaping epistemic authority, and redefining institutional accountability.

This has three concrete implications:

- **Governance must be enterprise-wide.** Most organisations still classify AI spending under software or R&D budgets - or, in hospitals, under research or the medical board - and oversee it through ad hoc working groups and steering committees. That is governance failure. You would not run electricity through the facilities department; yet that is how AI is currently managed.
- **The operating model must evolve.** If AI is infrastructure, the technological operating model must evolve with it. This is not adding a layer; it is reimagining how the organisation functions.
- **Change is systemic.** When the question is no longer how to adopt a tool but how humans and machines interact across the organisation, communication, culture, and capability matter as much as technology.

Frameworks that work

The good news is that we are beginning to learn which approaches succeed.

The **AI Transformation Framework** - *path framing*, *path narrating*, *path stretching* - offers a structured approach. *Path framing* defines what AI means for the organisation's strategy. *Path narrating* creates a temporal structure for implementation: not a roadmap so much as a narrative. *Path stretching* scales those efforts across the enterprise.

The **ADKAR model** - Awareness, Desire, Knowledge, Ability, Reinforcement - recognises that transformation is not about deploying technology; it is about changing how people work. In healthcare, clinician adoption depends on:

- **Awareness** - understanding why AI infrastructure matters for patient safety.
- **Desire** - seeing how it makes the work more meaningful.
- **Knowledge** - training and support to work effectively with AI systems.
- **Ability** - time and resources to develop new skills and workflows.
- **Reinforcement** - feedback that demonstrates better patient outcomes and reduced burden.

The insight that ties these frameworks together is governance design. **Hybrid governance models - enterprise strategy paired with distributed implementation - outperform purely centralised or decentralised approaches by 41 percent in user adoption and 26 percent in cost efficiency.** Researchers call this the *ambidextrous organisation*.

The narrative shift

One of the most underestimated aspects of infrastructure transformation is narrative. I often use the example of a "pilot" versus an "implementation test": the latter is a final step toward broader implementation, while the former can happen many times over - in healthcare, even at separate departments. How an organisation talks about AI fundamentally shapes how staff, patients, and stakeholders interpret its role.

For years, AI has been framed as a threat - a job killer, a risk, something to be contained. Organisations that are succeeding at infrastructure transformation are reframing it.

OLD NARRATIVE	NEW NARRATIVE
<i>"AI will change our jobs."</i>	"AI helps us provide the care our patients deserve."
<i>"We must implement AI to stay competitive."</i>	"This infrastructure helps us catch what we might miss and reduces clinician burden."
<i>"AI is a risk to be contained."</i>	"AI is infrastructure to be governed, like any other safety-critical system."

This is not spin. When AI is genuinely designed as infrastructure that amplifies human judgement rather than replaces it, the narrative becomes the reality. Organisations implementing AI infrastructure thoughtfully are reporting improved diagnostic accuracy, earlier detection of patient deterioration, reduced administrative burden for clinicians, better work-life balance for care teams, and a stronger safety culture.²

Why infrastructure thinking changes everything

In my work on digital transformation I have identified what I call *pre-paradigm-shift signals* - small, almost imperceptible signs that, accumulated, become evidence of fundamental change.³ Three are now visible with AI.

Signal 1 — The governance gap

Most organisations still treat AI as a line item under software, R&D, or particular departments and oversee it through ad hoc working groups. When something becomes infrastructure - electricity, water, the internet - you do not manage it that way. You establish enterprise-wide governance with clear accountability, transparent standards, and continuous monitoring.⁴

Signal 2 — The operating-model mismatch

A twenty-first-century AI strategy does not fit inside a twentieth-century operating model. The 5 percent budget threshold matters not because of the spend itself, but because organisations that cross it tend to be the ones that have reorganised around AI capability - redesigning workflows and changing how decisions are made at every level.

Signal 3 — The adoption-scale gap

Adoption and scaling are different things. Piloting an AI system in radiology, or using it to flag high-risk patients, is adoption. Scaling is the moment AI governance, workflows, and data practices are integrated across the organisation.¹ Bridging that gap is not a technology programme. It is organisational transformation.

The healthcare paradox: cautious, and right to be

Healthcare's situation is uniquely complex. The sector is increasingly starting to deploy AI - from diagnostic decision support to predictive analytics for patient deterioration - yet many systems remain in pilot, uncertain about enterprise-wide implementation.

This hesitation is not weakness. Regulatory requirements, patient-safety expectations, and liability concerns have created necessary guardrails. But guardrails are not a reason to avoid transformation; they are a reason to do it thoughtfully. The organisations leading in healthcare AI share a common stance: they treat AI as infrastructure that must *earn* trust through rigorous validation, transparent governance, and continuous monitoring. For them, scaling AI in healthcare does not mean moving faster. It means moving smarter, with patient safety as the foundation of every decision.

From vision to execution

For leaders driving this transformation - whether in healthcare or any safety-critical sector - the evidence points to six clear priorities.

SIX PRIORITIES FOR AI AS INFRASTRUCTURE

1. **Make safety and outcomes the centre of governance.** Establish enterprise-wide governance with patient safety, or mission-critical outcomes, as the primary criterion. Bring domain experts, technologists, compliance officers, and ethicists into integrated decision-making, not separate meetings.
2. **Design with front-line teams, not for them.** Involve clinicians, nurses, engineers, and front-line workers in system design and validation - the whole system in the room. And when it will face patients and their loved ones, involve them too, from the start. Their understanding of what actually works is as important as technical AI expertise.
3. **Build transparency into every system.** Prioritise explainable AI. Clinicians and other stakeholders need to understand the reasoning so they can hold accountability and validate recommendations against their own expertise.
4. **Implement continuous monitoring, not one-time validation.** Plan for ongoing surveillance of AI performance - not only for accuracy, but for safety, equity, and absence of bias across populations and conditions. Infrastructure requires maintenance; AI evolves on a continuous basis, and so must the oversight around it.
5. **Communicate the outcome story.** Frame AI infrastructure around what it actually does: it helps people do meaningful work better. In healthcare, that means safer care, more time with patients, and reduced administrative burden.
6. **Invest in literacy systematically.** AI capability among clinicians, engineers, and leaders is not optional. It is foundational. Provide training, protect time for learning, and recognise that comfort grows through experience and demonstrated value - the learning curve for using AI is at least as steep as the one we accept when starting on a different EMR.

Why healthcare can lead

Healthcare has something most sectors lack: the clearest possible metric for success - improved outcomes and reduced harm.

When an AI system helps identify sepsis earlier, we do not just measure efficiency; we measure lives saved. When diagnostic AI catches cancer at an earlier stage, we measure survival. When decision support prevents a medication error, we measure prevented harm. These are human metrics, and they give the sector unique clarity about what AI infrastructure should serve.

We do not need to convince clinicians that AI is worth adopting. We need to demonstrate that thoughtfully implemented, infrastructure-based AI makes them better at the work they already do.

If healthcare gets this right, every other sector that depends on critical decision-making will learn from our example.

What this means for your organisation

If you are leading transformation in 2026, the evidence converges on five practical mandates.

1. **Stop treating AI as departmental.** Establish enterprise-wide governance. Allocate budgets at the organisational level.
2. **Evolve the operating model.** Digital strategy and the technological operating model must align. A twenty-first-century strategy does not fit a twentieth-century operating model.
3. **Invest in narrative.** Before deployment, define how you will talk about AI - to staff, to patients, to your board, and to regulators. Get this wrong and the best technology will fail.
4. **Build capability systematically.** AI literacy across leadership, clinical staff, and the board is foundational, not optional.
5. **Adopt infrastructure thinking.** Once something becomes infrastructure, maintenance, governance, and continuous investment are ongoing - never one-off.

The end of the beginning

We have moved past the phase in which AI is a novelty or a nice-to-have. Just as "innovation" used to be a label we attached to making things a little better, AI is now a critical part of the fabric of your organisation - and it will define not only your success, but your relevance.

We are entering the phase in which the organisations that treat AI as infrastructure will thrive, and those that treat it as a product will struggle. The next wave of change in every sector will be defined not by who adopts AI, but by who understands it as fundamental infrastructure and redesigns the entire organisation around it.

As I wrote in my 2018 book *Augmented Health(care): The End of the Beginning*, changes in tooling and infrastructure are not going to take your job. Done right, they will help you cope with the challenges and augment your skills, passion, and drive in a way that reduces burden, increases satisfaction, and makes healthcare an appealing place to work again.

What keeps me awake at night is not whether AI will transform our organisations. It will. The question is whether we will build it thoughtfully - or whether we will let external forces, technology companies, market pressure, and competitor moves drive the transformation for us.

The choice is ours. And the time is now.

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NOTES

1. Deloitte, *2026 State of AI in the Enterprise*. Adoption and scaling figures cited throughout.
2. Reported outcomes drawn from healthcare AI deployment studies and operational data published in 2025–2026.
3. Engelen, L. *Pre-paradigm-shift signals in digital health*. Working notes on digital transformation in healthcare.
4. See *CIO Magazine*, "AI is no longer software. It is enterprise infrastructure," 2025.

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