



# Stethoscopes to Smartphones: Bridging the Clinician-Tech Gap

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# Clinical Intuition vs Digital Reality



## Traditional Clinical Intuition

Classic diagnostic tools like stethoscopes represent hands-on clinical intuition and traditional patient examination skills in healthcare.



## Digital Healthcare Solutions

Modern healthcare utilises digital solutions, such as smartphone apps, for managing patient data and supporting clinical decisions.



## Balanced integrated Approach for Patient Care

Combining traditional diagnostic skills with digital technology enhances patient care by leveraging the strengths of both approaches.

- **From Analog → Digital → Intelligent**
- Stethoscope → Digital stethoscope
- Paper records → EMR
- Clinical judgment → AI-assisted decisions
- **“We carry more computing power in our pockets than in entire ICUs of the past.”**
- **Yet...**
  - Many clinicians still rely only on traditional tools
  - Technology exists → but **adoption gap** persists
- **Technology is advancing faster than clinical integration**

# The **Gap** is Real...

- Technology/data overload
- Poor usability
- Clinician frustration
- Lack of training / awareness
- Trust deficit in AI
- Workflow disruption
- Cost and accessibility issues (important for Indian context)



## Why This **Gap** Matters ?

- Delayed diagnosis
  - Missed early warning signs
  - Inefficient workflows
  - Burnout
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- Asthma patient → digital inhaler compliance monitoring → preventable exacerbation

# Building the Bridge

## 1. Training

- Digital literacy in medical education

## 2. Design

- Clinician-friendly interfaces
- Clinician Leadership in Design

## 3. Validation

- Evidence-based tools

## 4. Integration

- Seamless EMR + workflow

## 5. Mindset shift

- From resistance → collaboration

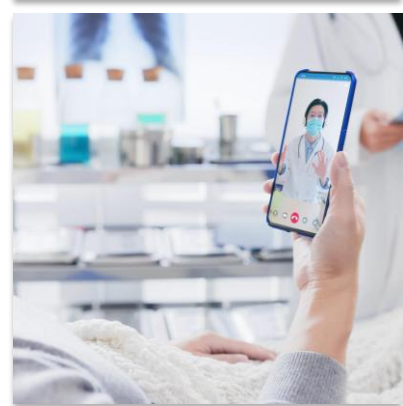
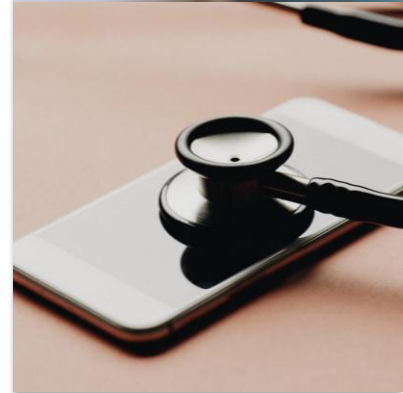


- **Indian Perspective IN**
- High patient load
- Rural-urban divide
- Limited specialists
- Technology can:
- Enable **task shifting**
- Improve **primary care diagnostics**
- Strengthen **telemedicine networks**

# Smartphones with AI

## *The new stethoscope*

- Multi-functional ,Real-time connectivity ,connected devices-  
spirometry, USG , digital stethoscope
- Radiology assistance
- ECG interpretation
- Predictive analytics (ICU, sepsis)
- Chat-based decision aids
- Ambient AI Notes
- Real-Time Remote Diagnostics



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# Empathy First, 'Tech' Second

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## Human Connection in Healthcare

Prioritising empathy strengthens the relationship between clinician and patient, fostering trust and better care experiences.

## Technology Enhances Relationships

Effective technology should support clinicians by saving time and improving patient interactions, not creating barriers.

## Empathy Above Advancement

Empathy must guide clinical design; technology is valuable only if it enhances human connection and care.



# Invisible Technology, Visible Care

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## **Seamless Technology Integration**

The best technology enhances patient care by integrating smoothly into clinical practice, improving trust and communication.

## **Human Connection in Healthcare**

Direct eye contact between doctor and patient shows the value of genuine human interaction in medical care.

## **Compassion and Innovation**

Compassion and innovation together drive improvements in healthcare, making technology serve human needs better.



## PERSPECTIVE

## AI IN MEDICINE

## The Lost Aura of the Physician in the Age of Artificial Intelligence

John D. Lantos, MD

**Artificial intelligence (AI)** now performs many tasks that were once the exclusive province of physicians.<sup>1</sup> It makes difficult diagnoses, provides psychological counseling, detects drug interactions, reads images, predicts outcomes, and reviews scientific articles (eAppendix in the Supplement).<sup>2</sup> As these capacities expand, physicians' roles will change. In many settings, physicians are increasingly positioned as supervisors of semiautonomous systems, retaining responsibility with diminished autonomy.<sup>3</sup>

Philosopher Walter Benjamin lived long before the advent of AI but he analyzed another transformative technology. Writing in the 1930s about photography and cinema, he asked whether the mechanical reproduction of visual images would render painting—and painters—obsolete. In Benjamin's time, some critics denigrated the artistic value of photographs just as today many question whether AI can truly understand illness or empathize with discomfort.<sup>4</sup>

Benjamin recognized that technologic reproductions were different. He hypothesized that original works of art had a so-called aura. Benjamin never precisely defined *aura*. Instead, he recognized that there was something special about an original artwork compared with a reproduction, that it reflected its singular history and unique trajectory through time, space, and social meaning.<sup>5</sup>

Historically, physicians possessed something comparable.

The tension between the quest for technologic efficiency and insistence of the importance of human presence long predates AI. Those 2 goals have always been in tension. Every push in one direction leads to pushback in the other.<sup>8</sup> Artificial intelligence is but the latest development in this long struggle over the soul of medicine.

**Foucault and the Clinical Gaze**

That long struggle began as early as the late 18th century. Until then, illness was understood largely through patients' subjective experiences. The physician's primary diagnostic tool was the medical history. Then, innovative French physicians started to reimagine disease as an objectively observable pathologic entity. The patients' understanding of their ailment became extraneous.

Philosopher Michel Foucault analyzed this shift.<sup>9</sup> He showed how, in the minds of these pioneers, individual physicians and patients were increasingly framed as "disturbances that can hardly be avoided" but that, ideally, should be neutralized in the pursuit of objective medical truth. Foucault called this abstraction the clinical gaze. The patient's story and the physician's interpretive presence became secondary to precise measurements and visualized pathology, quantification, and standardization. Physicians were encouraged to spend less time talking to patients and more time gathering the data that would lead to an evidence-based diagnosis and treatment plan.

## AI IN MEDICINE

## The Lost Aura of the Physician in the Age of Artificial Intelligence

John D. Lantos, MD

**“Technology will not replace doctors—but doctors who use technology will replace those who don’t.”**

Artificial intelligence (AI) performs many tasks that were once the domain of physicians. It makes difficult diagnoses, provides psychological counseling, checks for drug interactions, reads

images, predicts outcomes, and reviews scientific articles (eApp). It is a powerful tool that can help physicians' roles will change. In many settings, physicians are increasingly positioned as supervisors of semiautonomous systems, retaining responsibility with diminished autonomy.<sup>3</sup>

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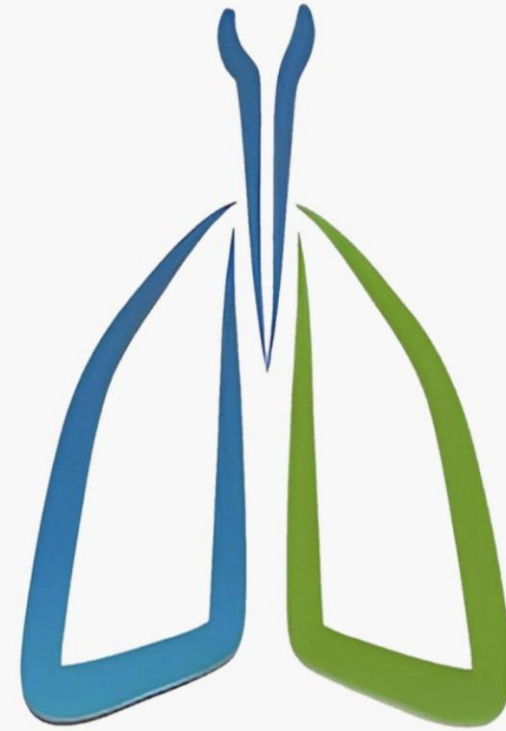
#### Foucault and the Clinical Gaze

That long struggle began as early as the late 18th century. Until then, illness was understood largely through patients' subjective experiences. Physicians used their own eyes and ears to observe and diagnose. In the 19th century, however, the microscope and other tools of medical science began to take over. Physicians started to treat disease as an objectively observable pathologic entity. The patients' understanding of their ailment became extraneous.

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