

AI in Healthcare: Beyond the Hype

*“Re-Humanizing the
Digital Transformation of
Healthcare!”*

Lance M. Owens, DO



Disclosures

- CMIO at Artisight
 - Owner of Altomus
- Neither of these affiliations have had any influence on the educational content of this talk.



OBJECTIVES:

Beyond the Hype



Understand **what AI is**—and **what it is not**—in clinical practice



Recognize where **AI is** already **impacting** healthcare today



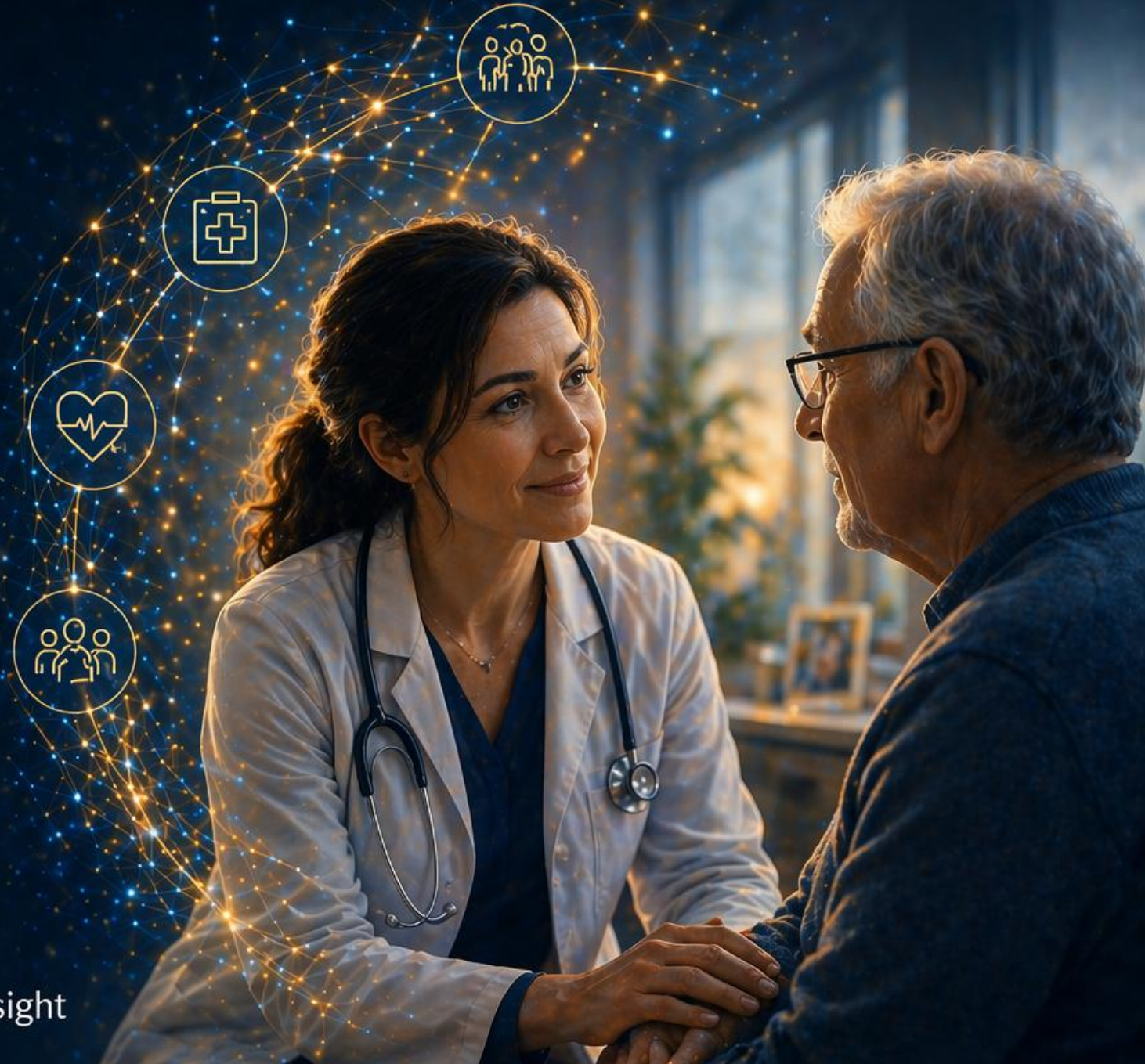
Envision how AI can **augment workflows** across the care continuum



Explore how AI can **re-humanize** the patient–physician relationship



Identify the **physician's role** in governance, implementation, and oversight







Why This Matters Now

We have a choice. The time to shape the future is now.



The Digital Transformation has de-humanized healthcare.



Physicians feel excitement...and concern.



AI is rapidly entering into clinical practice.



This is happening for many reasons—some of them out of our control.



Do we now have an opportunity to fix it?

AI

Let's use AI to bring humanity back to healthcare.



The future of healthcare depends on how we lead today.
Physicians must be at the table.

The Reality

Reality Check: What AI Is (and Isn't)



AI is a powerful tool.
Physicians are—and always will be—the **ultimate decision makers**.



WHAT AI IS



Pattern Recognition + Prediction

Finds patterns in data to identify risk and make predictions.



Workflow Automation

Automates repetitive tasks to save time and reduce burden.



Decision Support

Provides insights and recommendations to inform better decisions.



WHAT AI IS NOT (YET)



Autonomous Physician
AI does not replace the judgment, experience, or compassion of a physician.



Independent Clinical Decision Maker
AI does not make decisions independently or without human oversight.



AI augments physicians.
It does not replace them.

Better decisions.



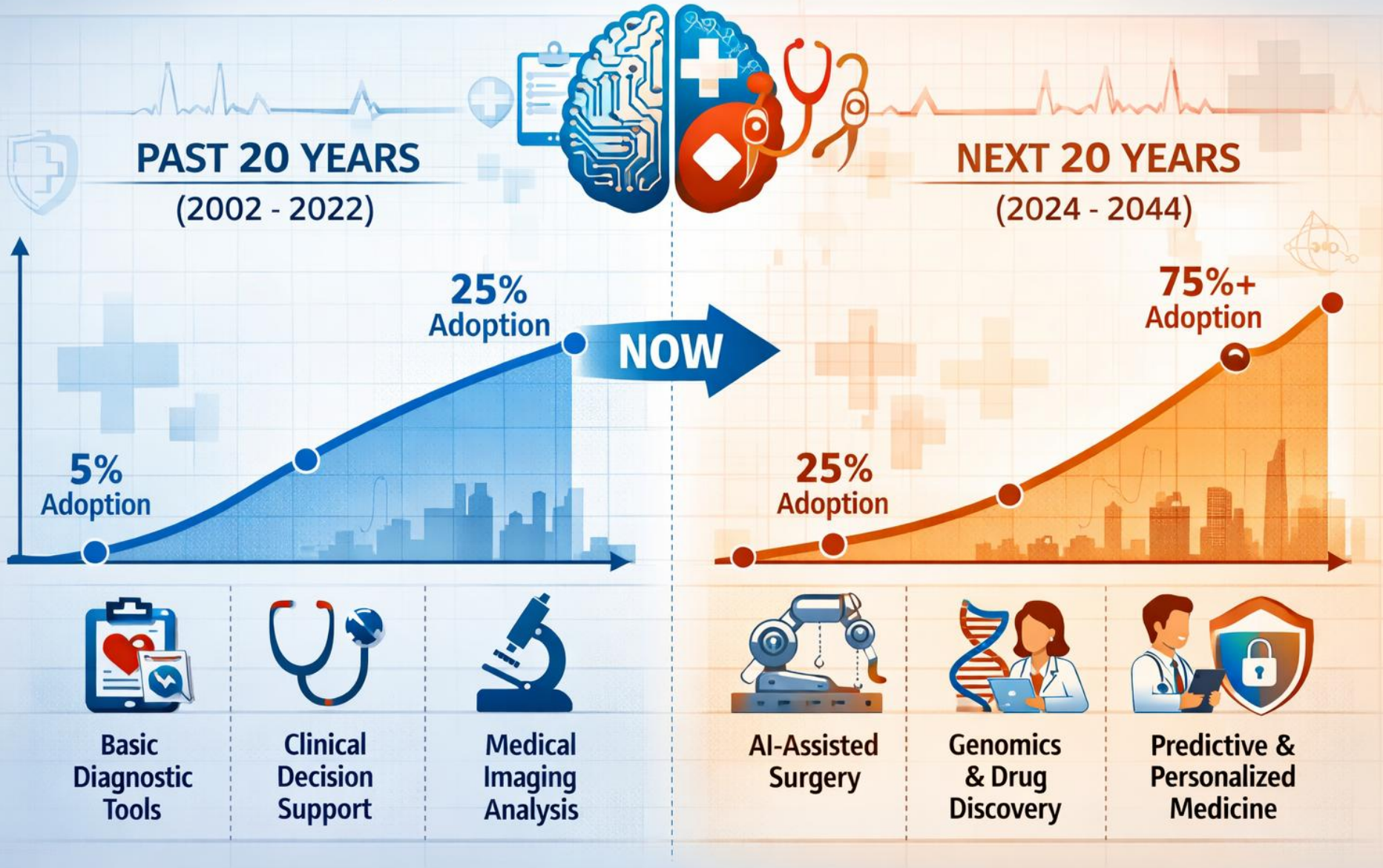
Safer care.



Stronger relationships.



AI Adoption in Healthcare: Past & Future



Sources: American Medical Association (AI Survey 2023–24); Stanford University (AI Index 2023–25); U.S. Food and Drug Administration (AI/ML Devices Database 2024–25); McKinsey & Company (GenAI Healthcare 2023); Accenture (AI in Healthcare); World Economic Forum (Future of Health); New England Journal of Medicine (Rajkomar et al., *Machine Learning in Medicine*).

“AI adoption is no longer theoretical – it is operational.”



Is AI going to replace me... or help me?

AI should augment physicians, not replace them.

EHR TASKS

- ✓ Finish Note
- ✓ Sign Orders
- ✓ Review Results
- ✓ Respond to Messages
- ✓ Care Gaps

REMINDER

- ✓ Care Gap Alert

INCOMPLETE

- ✓ Note In Progress



Patient Insights

Comprehensive summary
Key risks identified



Clinical Support

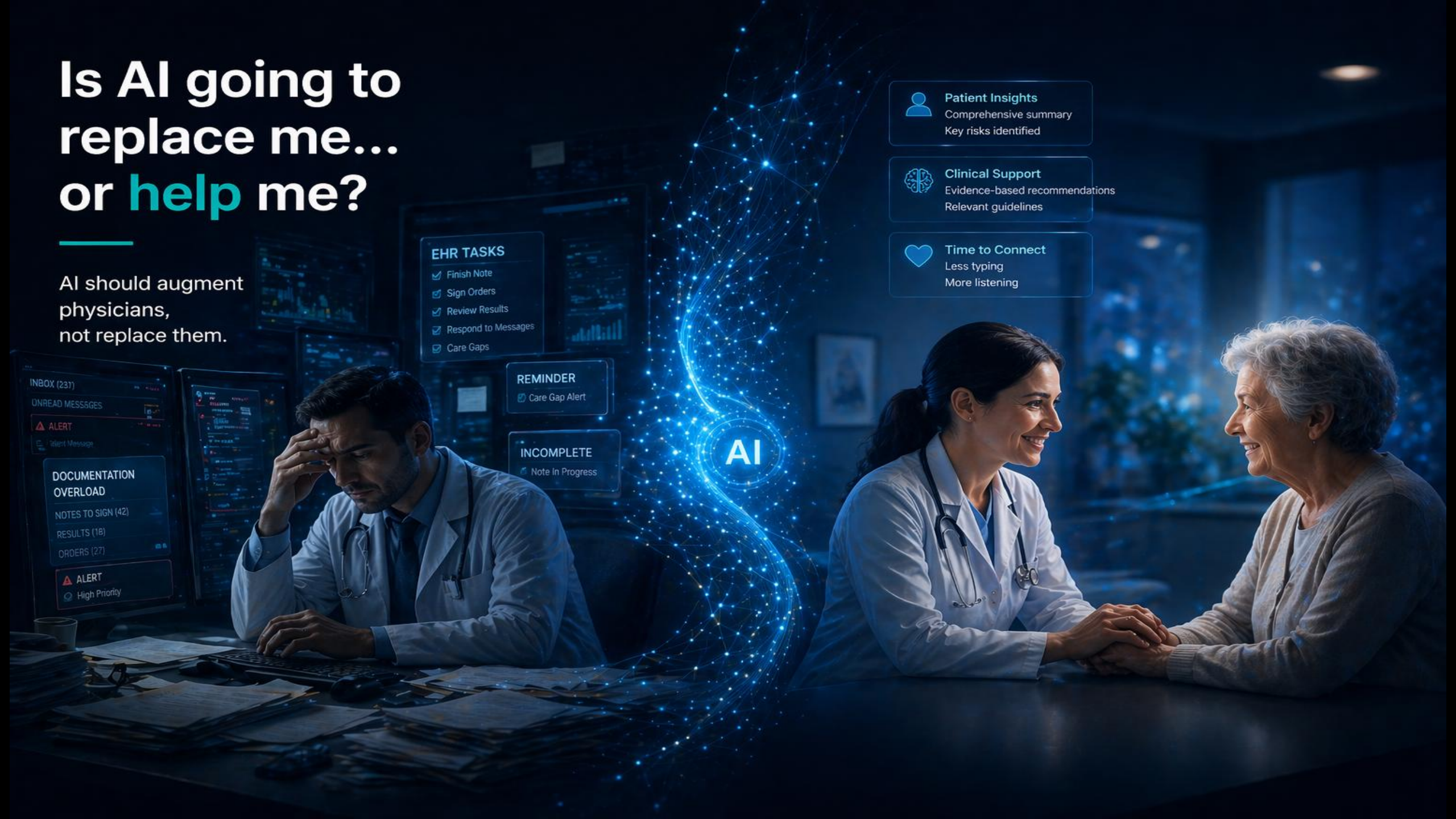
Evidence-based recommendations
Relevant guidelines



Time to Connect

Less typing
More listening

AI



Where AI Is Already Making an Impact

AI is transforming every part of healthcare —driving better care, smarter decisions, and stronger systems.

AMBULATORY CARE

Smarter workflows
Patient engagement
Care gap closure



INPATIENT CARE

Patient monitoring
Virtual nursing
Clinical documentation



DIAGNOSTICS & IMAGING

Faster interpretation
Early detection
Improved accuracy



OPERATIONS

Resource optimization
Predictive analytics
Operational efficiency



AI

Use Cases



Four Domains of AI in Healthcare

AI is transforming every part of healthcare—reducing burden, improving outcomes, and enhancing the human experience.



DOCUMENTATION

Automate notes and tasks, improve accuracy, and reduce administrative burden.



OPERATIONS

Optimize workflows, resources, and performance across the healthcare enterprise.

AI



CLINICAL DECISION SUPPORT

Deliver real-time insights, evidence-based recommendations, and predictive intelligence.



PATIENT EXPERIENCE

Personalize engagement, improve access, and support better outcomes.

Use Cases

DOCUMENTATION

- Ambient/DANbient Assistance
- Automated Tasks
 - Notes
 - Letters
 - Forms
- Coding Support
 - MDM
 - LOS
 - HCC

OPERATIONS

- Scheduling Automation
- Care Gap Closure
- Call Center AI
- Afterhours Triage
- Throughput Optimization



Use Cases

CLINICAL DECISION SUPPORT

- Imaging
- Early Detection
- Predictive Modeling
- Patient Insights
- Personalized Care

PATIENT ENGAGEMENT

- AI Assisted Intake
- Education
- Patient Facing Summaries
- Follow-up



Re-Humanization



De-Humanization of the Digital Transformation

WHAT WE LOST

- Presence
- Time
- Autonomy
- Meaningful connections
- ...



Re-Humanization of the Digital Transformation



WHAT WE STAND TO GAIN

- Listening
- Thinking
- Connecting
- Being Present
- “Blind Spot” Detection



“Ironically...AI may be the most powerful tool we’ve ever had to re-humanize the digital transformation of healthcare.”

-Lance M. Owens, DO



Frontline Involvement



Why Clinicians Must Be Involved

- ✓ AI fails without clinician input
- ✓ Workflow determines success
- ✓ Poorly designed tools create friction
- ✓ Clinical oversight is essential
- ✓ Physicians are key to identifying bias



Where You Can Engage

- Pilot Programs
 - Governance Committees
 - Workflow design
 - Feedback loops
-
- You don't need to know anything about AI or IT...you just need to know medicine and have a voice!



Governance



The Concerns Are Real

AI brings incredible potential—and real questions. Addressing them head-on is how we build trust, safety, and a better future for healthcare.



Job Security

"AI will replace physicians."



Safety

"Who is to blame if it is wrong?"



Trust

"This whole thing is just wrong!"



Loss of Control

"The robots are taking over!"





“This AI genie is not going back into the bottle.”



Rapid
Adoption



Expanding
Capabilities



Global
Impact



Our Responsibility
to Lead



It's not about stopping AI.
It's about *shaping it*—responsibly, ethically, and for the good of our patients.

Governance Principles

- What expectations you can advocate for:
 - Safety
 - Transparency
 - Bias Mitigation
 - Physician Oversight
 - Continuous Monitoring
 - Address Knowledge/Skill Deterioration
 - Any tool should amplify our abilities and enhance the relationship with the patient



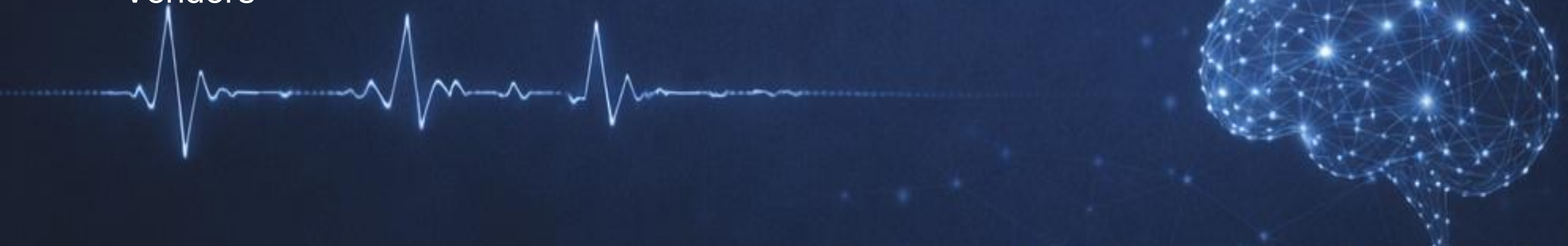
AI Requires More Than Technology

- Data Quality
 - Need good reliable data to make good sound decisions/recommendations
- Integration
 - Can't be expected to leave workflow to use these tools
- Governance
 - Pros and Cons
- Training
 - Start with AI literacy then the tools



Resources

- AOA – American Osteopathic Association
- AMA – American Medical Association
- CHAI – Coalition for Health AI
- Stanford HAI – Stanford Institute for Human-Centered Artificial Intelligence
- HIMSS – Healthcare Information and Management Systems Society
- TRAIN – Public Health Foundation TRAIN Learning Network
- CHIME – College of Healthcare Information Management Executives
- Vendors



The Next Phase: Agentics



AI Agents: Working Together for Better Care

Intelligent agents collaborate across systems and tasks—so nothing falls through the cracks.



Coordinated

Working together seamlessly



Proactive

Anticipating needs and reducing risk



Personalized

Delivering the right information at the right time



We're moving from AI tools... to AI teammates.

AI TOOLS

Assist with individual tasks



Document



Analyze



Detect



Summarize

Task specific • Reactive



AI TEAMMATES

Collaborate across tasks and systems



Proactive • Contextual • Collaborative

What If This Was Your Day?

AI works in the background so you can focus on what matters most.



YOUR SCHEDULE

Optimized for today
18 Patients • 2 Openings



PATIENT INSIGHTS

Updates and alerts ready for your review



CARE GAPS

3 Patients need follow-up
2 Overdue screenings



PRIORITY MESSAGES

1 Urgent • 2 Routine



TODAY'S SCHEDULE

8:00	J. Smith	Check-in
8:30	M. Johnson	Scheduled
9:00	A. Williams	Scheduled
9:30	R. Brown	Follow-up
+ 2 Openings Available		



PATIENT INSIGHTS

M. Johnson
Follow-up from ER visit

A. Williams
Lab results available

R. Brown
Medication adherence improving



CARE GAPS

- 3 Patients need follow-up
- 2 Overdue screenings



PRIORITY MESSAGES

- 1 Urgent
- 2 Routine



Before The Visit

THE PATIENT

- Appt Management
- AI Care Management
 - Chronic disease
 - Medical/Social services
- Care Gap closure/quality
- Refills/Labs
- Chart Prep

THE PROVIDER

- Chart Prep/summary
- Insights
 - “What has happened since my last visit?”
 - Incidental findings
- Risk Flags



During The Visit

THE PATIENT

- Check-In
- Pre-visit Education
- Ambient scheduling
- Patient Summary

THE PROVIDER

- Ambient Tools
 - Documentation
 - Chart search
 - Orders
- 'Blind spots'
- Billing/Coding/HCC
- BEING PRESENT!



After The Visit

THE PATIENT

- Care Management
- Reminders
 - Medications
 - Testing
 - Appointments
- Education

THE PROVIDER

- Insights
- Reminders
- Moving on
- TIME



The Smart Hospital

AI connects people, places, and data in real time—improving care, safety, and efficiency.



KNOWING WHO IS PRESENT

Real-time visibility of patients, staff, and resources.



AMBIENT DOCUMENTATION

AI captures and organizes information—so clinicians stay present.



VIRTUAL NURSING

Extends care teams with remote monitoring and support.



PATIENT MONITORING

AI analyzes data continuously to detect changes early.



TELESITTING, CARE, SETTING

Virtual eyes and ears enhance safety and patient experience.



AND THIS DOESN'T INCLUDE OPERATIONS

Supply chain, staffing, scheduling, and more—optimized by AI.



Technology Should Elevate Human Connection

AI handles the background
so you can be fully present
in the moment.



More Listening

Less time on documentation



Better Decisions

AI-powered insights



Stronger Trust

Built on understanding



Improved Outcomes

Data working in the background



Wrapping our **digital** arms around the patient



AI INSIGHTS



SMARTER
WORKFLOWS



PREDICTIVE
ANALYTICS



CONTINUOUS
MONITORING



PATIENT
ENGAGEMENT



DATA PRIVACY
& SECURITY



CARE
COORDINATION



HUMAN
CONNECTION



Call to Action



The Provider's Role

- Protect Patients
- Be involved in designing workflows
- Lead/Participate in adoption
- Be a part of governance

If we're not at the table, we're on the menu



What Really Matters Going Forward



AI is **already here**—and accelerating—across clinical and operational care



Today's AI **augments** physicians; it does not replace them



The greatest opportunity is to **re-humanize** the patient–physician relationship



Frontline physicians must be **actively involved** in design, implementation, and evaluation



Strong **governance** is essential to ensure safety, trust, and equity



The future of healthcare AI will be shaped by those who **choose to lead it**





“And now....
the rest of the story.”

-Paul Harvey



$$P_i = \frac{f_i}{\sum_j f_j}$$

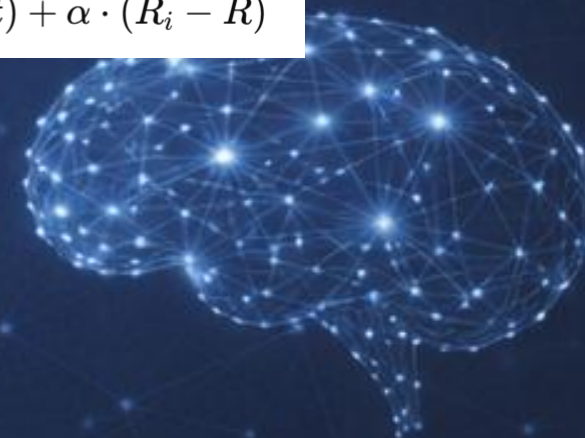
$$x_{i,k} = lb_k + \phi_{i,k}(ub_k - lb_k)$$



$$P_i = \frac{1/(T_i Q_i)}{\sum_j 1/(T_j Q_j)}$$

$$w_i(t+1) = w_i(t) + \alpha \cdot (R_i - \bar{R})$$

- Seeley, T.D. — *The Wisdom of the Hive* (1995)
- Nakrani, S. & Tovey, C. — *Honeybee Algorithm (server allocation)* (2004)
- Radiolab — *Time is Honey* (2026)



So the real question isn't whether AI is going to shape healthcare...it's whether we will shape AI.

Questions?

A large, glowing brain silhouette is the central focus, constructed from a dense network of small, golden-brown bees. Each bee is connected to its neighbors by thin, glowing lines, creating a complex, interconnected web. The bees themselves are illuminated from within, giving them a bright, starburst-like appearance. The background is a deep, dark blue, speckled with numerous smaller, out-of-focus bees, suggesting a vast, active network. The overall effect is one of organic complexity and collective intelligence.