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AI Beyond Hype:

How the 5P's Are Making AI in Healthcare Real

Precision | Prediction | Personalization | Population | Prevention

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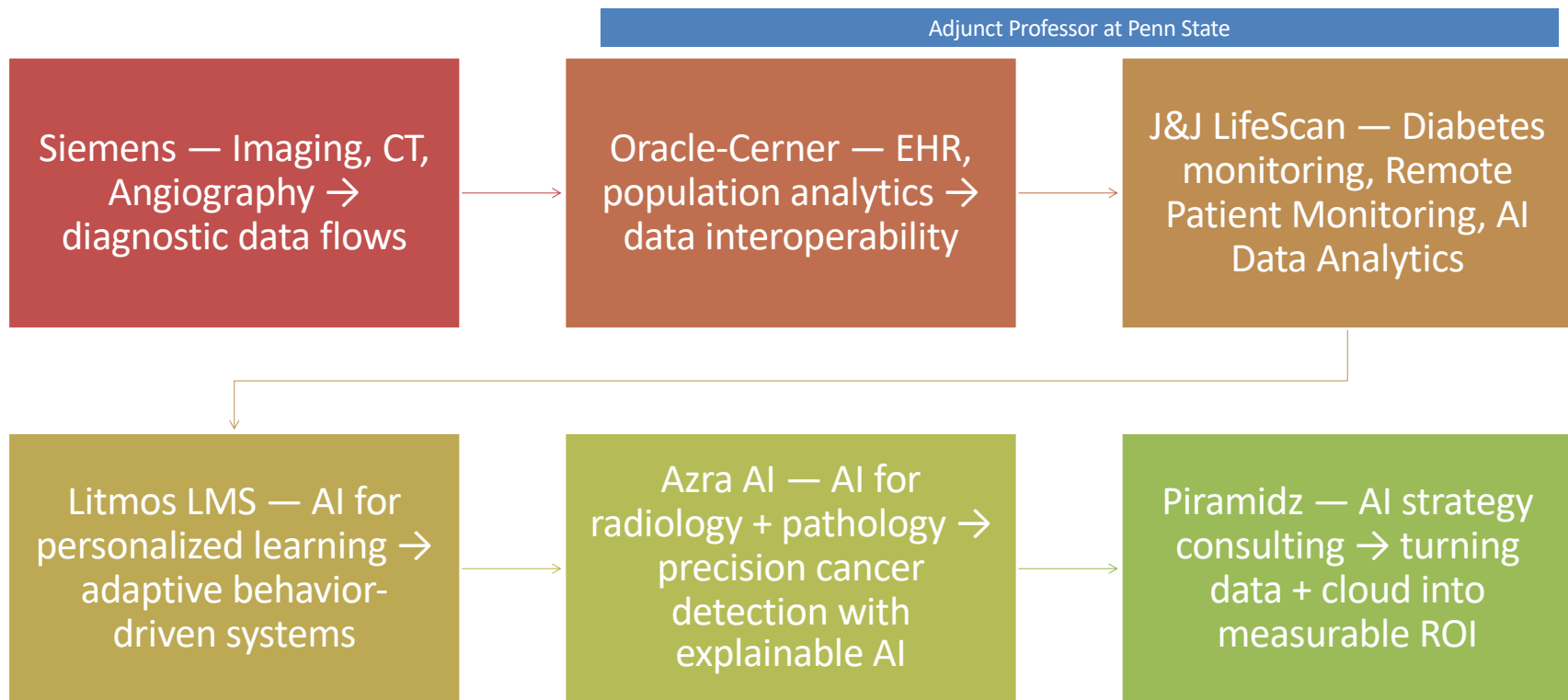Founder & CEO | Piramidz

AI at the Crossroads

AI promises transformation—but adoption remains patchy.

EHR modernization consumes budgets yet delivers limited ROI.

From 'electronic health records' to 'intelligent health engines': the next leap requires AI with explainability, precision, and purpose.
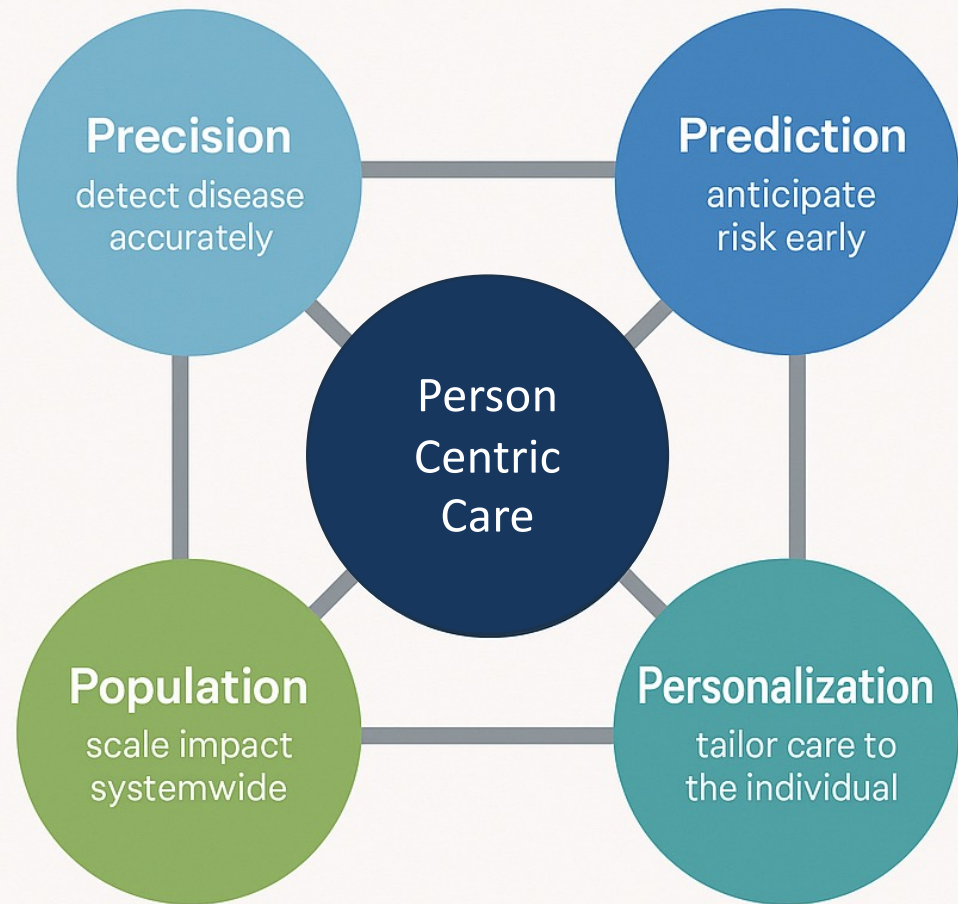
Goal: Reframe AI from hype to health impact.

My Journey Across Healthcare & Technology

Adjunct Professor at Penn State

Siemens — Imaging, CT, Angiography → diagnostic data flows

Oracle-Cerner — EHR, population analytics → data interoperability

J&J LifeScan — Diabetes monitoring, Remote Patient Monitoring, AI Data Analytics

Litmos LMS — AI for personalized learning → adaptive behavior-driven systems

Azra AI — AI for radiology + pathology → precision cancer detection with explainable AI

Piramidz — AI strategy consulting → turning data + cloud into measurable ROI

The 5P Framework for Healthcare AI

The 5Ps bridge clinical excellence and strategic execution

Precision — detect disease accurately

Prediction — anticipate risk early

Person Centric Care

Population — scale impact systemwide

Personalization — tailor care to the individual

Prevention – keep ~~patients~~ people healthy and reduce cost

Precision in Practice: Cancer Detection

Built transformer-based AI models for radiology and pathology image interpretation.

Trained on over 10 million clinical reports – Pathology and Radiology

Validation Metrics: Precision = 0.93 | Recall = 0.89 | F1 Score = 0.91.

Early diagnosis, consistent coding, clinician trust.

Explainability via visual heatmaps and linguistic explanations.

Prediction: Seeing Around the Corner

Predict disease progression and recurrence using multimodal data.

Use case: predictive modeling reduced unplanned readmissions by 18%.

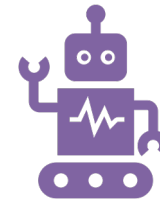Integrating prediction into EHR workflows turns data into foresight.

Personalization: AI That Adapts to People

From mass protocols to individualized insights.

Adaptive learning improved clinician skill retention by 38%.

In clinical AI, personalization means context-aware recommendations rooted in each patient's unique journey.

Population Health: Scaling Insight Across Health Systems

Registry-driven analytics reveal patterns across demographics and geographies.

AI used to flag incidental findings → link to care pathways.

Partnership between AI models and public-health strategy prevents late-stage diagnoses.
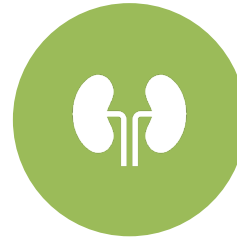
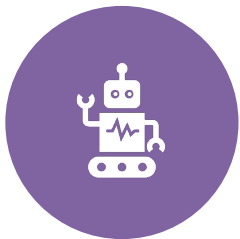Population health: identify high-risk cohorts through EHR + imaging signals.

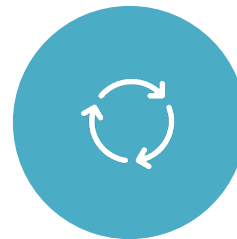**Prevention: Proactive Healthcare**

Continuous monitoring and predictive screening.

Example: Incidentals pipeline found early lung, liver, and pancreatic abnormalities.

Goal: Move from sick-care to preventive care through AI-enabled alerts and longitudinal tracking.

Shift from reactive to predictive and preventive care.

Explainable AI & Trust — The True Differentiator

Black-box AI fails in healthcare without explanation.

Explainable AI builds trust and adoption:

Visual justifications (radiology overlays)

Natural-language rationales for pathology findings

Confidence scores + model cards

Transparency = bridge between innovation and adoption.

Beyond Models: The Intelligent, AI-Enabled EHR

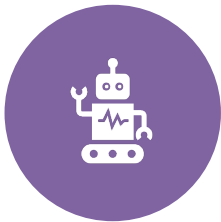|		
EHRs are no longer sunk costs—they're strategic assets.	AI transforms the EHR into a predictive, self-learning engine: Agentic AI	Automates documentation (Mayo Clinic NVA case)
Predicts denials, optimizes revenue cycle (UChicago case)	Improves staff productivity and burnout (Hackensack Meridian)	CFOs now lead AI adoption because ROI is measurable.

From Hype to Healing: A Call to Action

AI IS NOT REPLACING CLINICIANS—IT'S AMPLIFYING HUMAN INTELLIGENCE.

TRUST, GOVERNANCE, AND EXPLAINABILITY DRIVE SUSTAINABLE IMPACT.

THE 5P FRAMEWORK + INTELLIGENT EHR = FOUNDATION FOR NEXT-DECADE HEALTHCARE.

THE FUTURE OF HEALTHCARE IS INTELLIGENT, ETHICAL, AND EXPLAINABLE.

The ROI of Responsible AI

AI governance ensures accountability and privacy.

Define success metrics: precision, recall, F1, clinician trust.

Explainability improves adoption → measurable ROI.

CFOs and clinicians align when AI demonstrates outcomes within 90 days.

Responsible AI is not a cost center—it's a competitive advantage.

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ROOTS
TO
RISE

LEADERSHIP LESSONS FROM
A GLOBAL JOURNEY

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