UTHealth Houston

UTHealth Houston AI Task Force

Town Hall

December 9th, 2025

AI Task Force Steering Committee
Chair: Jiajie Zhang
Members: Chairs and Co-Chairs of Subcommittees
Management Team: Amy Franklin, Judy Young, Yukiko Bryson
Legal Advisor: William McElhiney

Research	Education	Patient Care	Technology and Implementation	Data Platform	Governance and Policy	Partnerships
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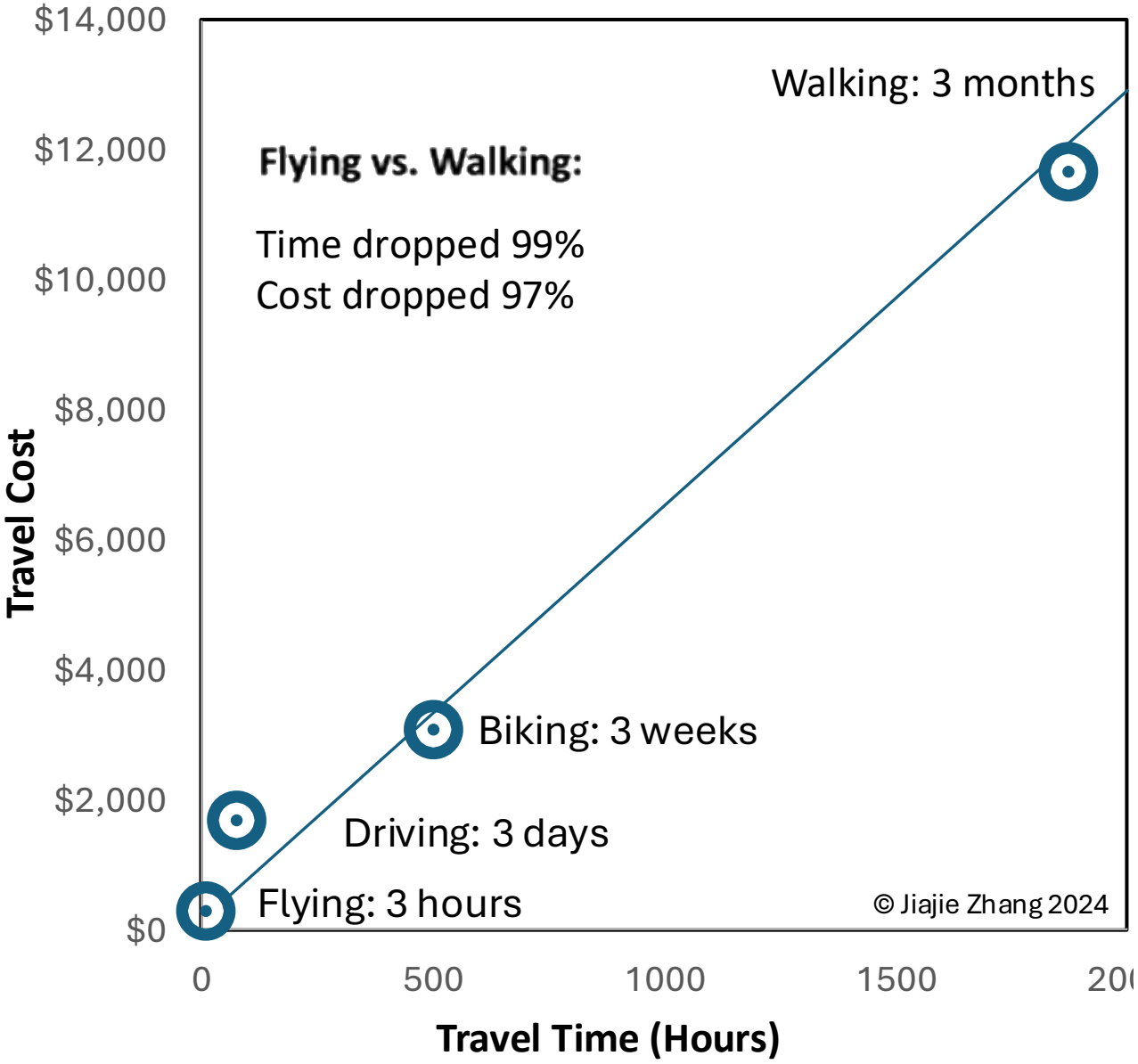
The State of AI
– Intelligence is Shareable, Scalable, and Open Source

AI won Nobel Prizes in Physics and Chemistry (10/8/2025, 10/9/2025)
AI will fundamentally change what we teach and learn at schools (1/7/2025; Sam Altman, OpenAI CEO)
AI will solve shortages of doctors and teachers (04/16/2026; Bill Gates)
AI will be as smart as the smartest artists in 3 to 5 years (4/16/2025; Eric Schimdt, former Google CEO)
AI is now eligible for the Mensa Club (4/19/2025)
AI will end disease in 10 years (4/20/2025; Demis Hassabis, Google DeepMind CEO, 2024 Nobel Laureate)
UAE is the first country to use AI to write laws (4/21/2025)
Most of your friends will be AI (5/7/2025; Mark Zuckerberg)
Moderna merged HR and IT departments (5/12/2025)
New jobs will be created; some jobs will be lost; every job will be transformed (7/11/2025; Jensen Huang)
AI won International Mathematics Olympiad (IMO) Gold Medal (7/20/2025)

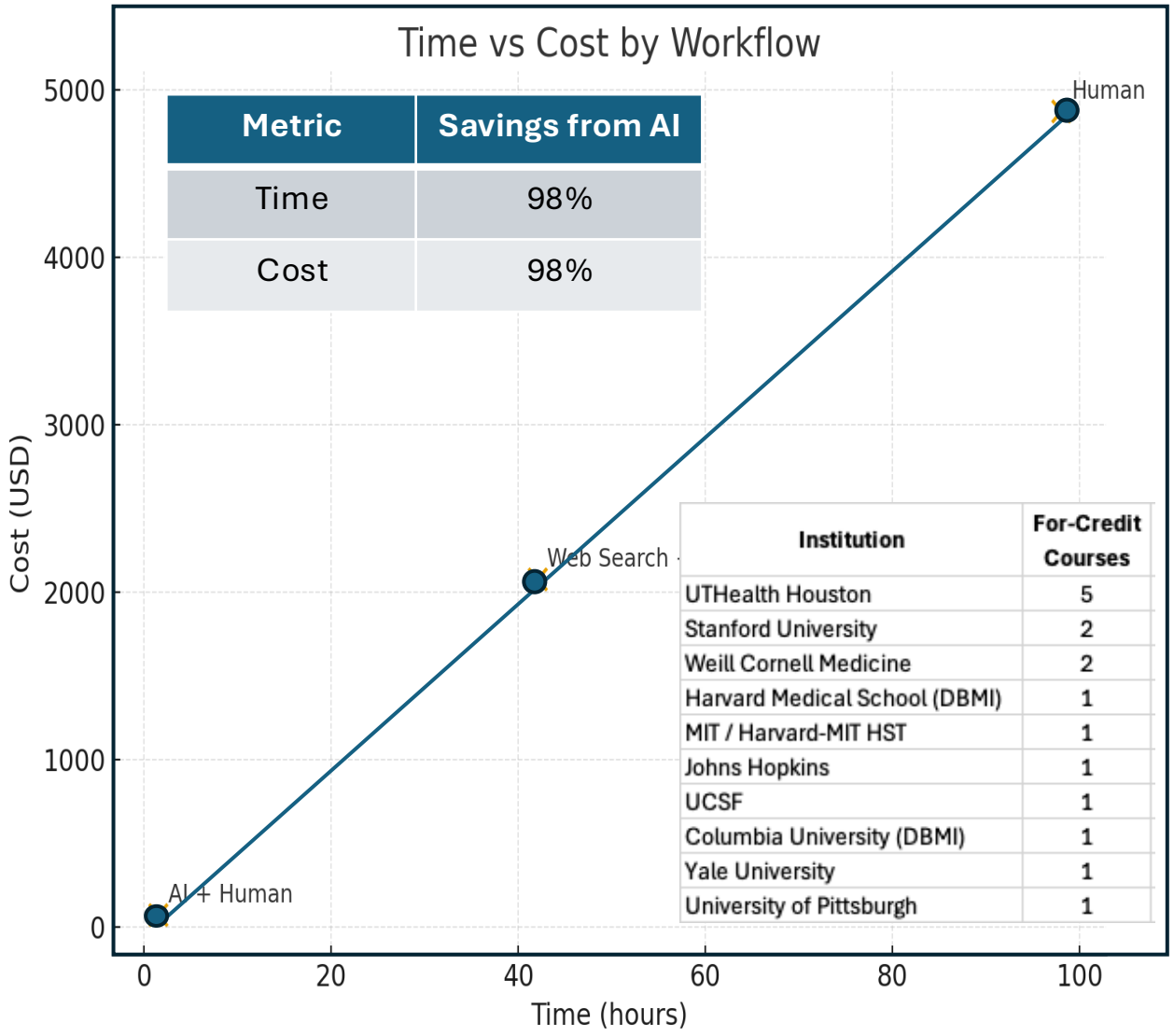
Engines liberated the body

From Houston to New York

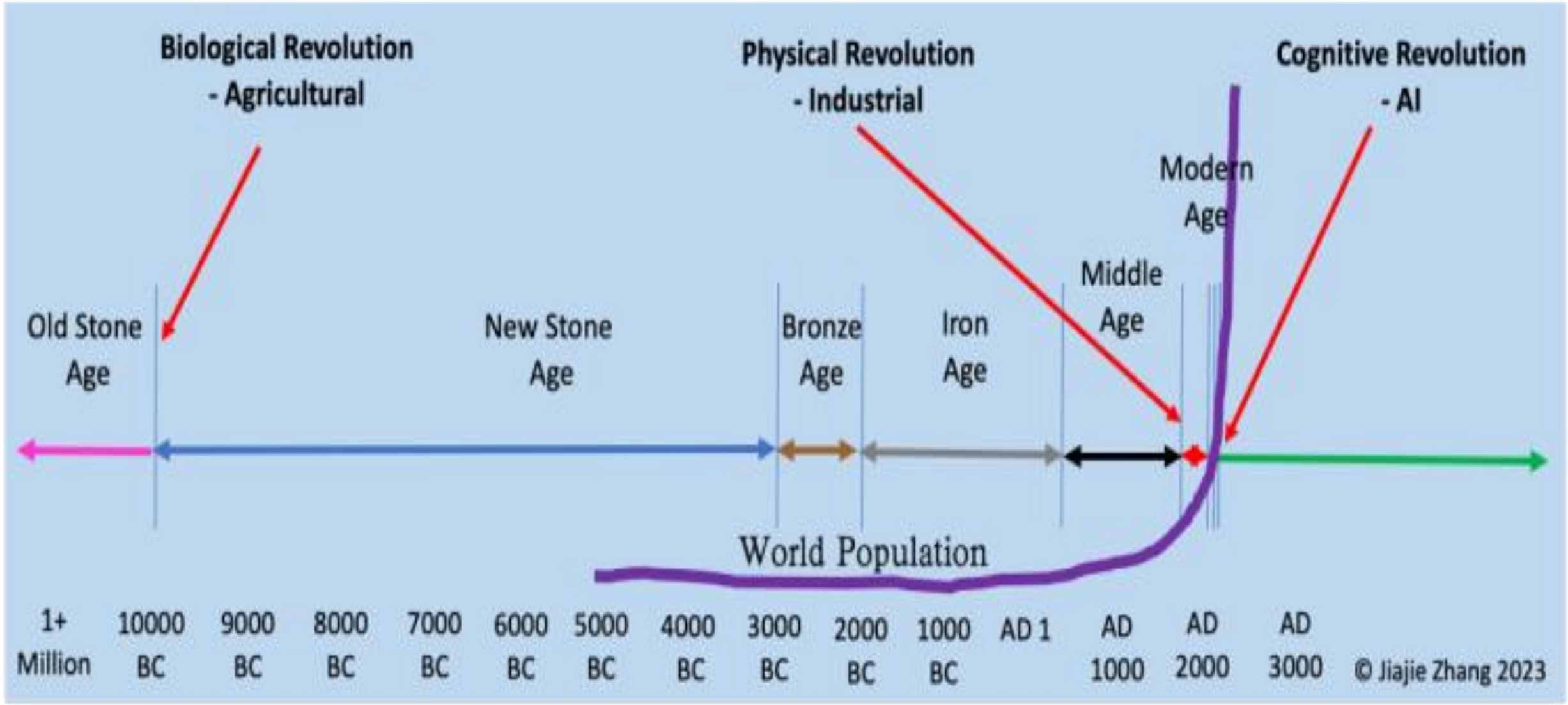


AI is now liberating the mind

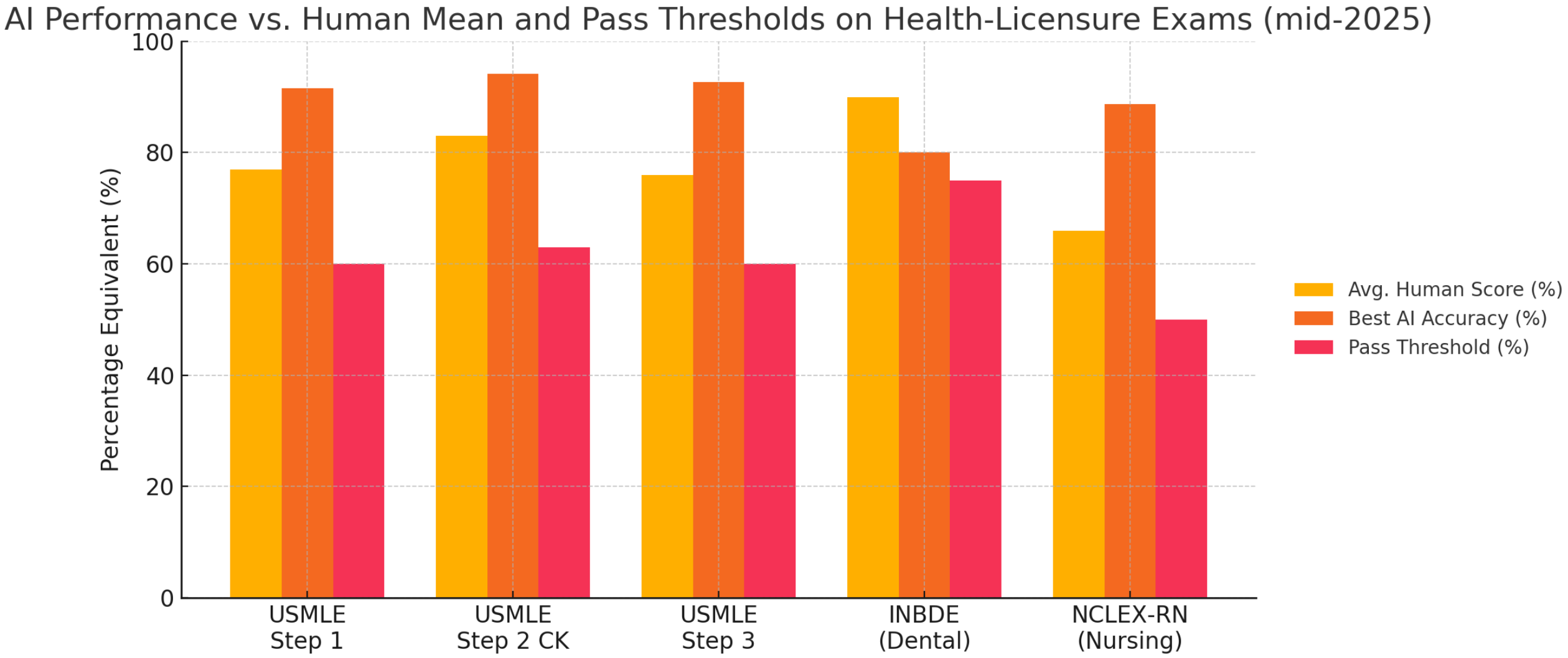
Scan of AI Courses across 156 AMCs



- Millennia for agriculture
- Centuries for industry
- Decades for AI



Education


AI Performance vs. Human Mean and Pass Thresholds on Health-Licensure Exams (mid-2025)
Percentage Equivalent (%)
0
20
40
60
80
100
USMLE Step 1
USMLE Step 2 CK
USMLE Step 3
INBDE (Dental)
NCLEX-RN (Nursing)
Avg. Human Score (%)
Best AI Accuracy (%)
Pass Threshold (%)

Patient Care

AI Panel Diagnoses 4x Better Than Doctors—And Cheaper

- Doctors work step-by-step to solve tough cases.
- MAI-DxO simulates a smart AI doctor panel.
- It chooses questions and tests wisely to reduce waste.
- Diagnoses correctly 4× more often than doctors.
- Spends half as much as typical AI or human methods.

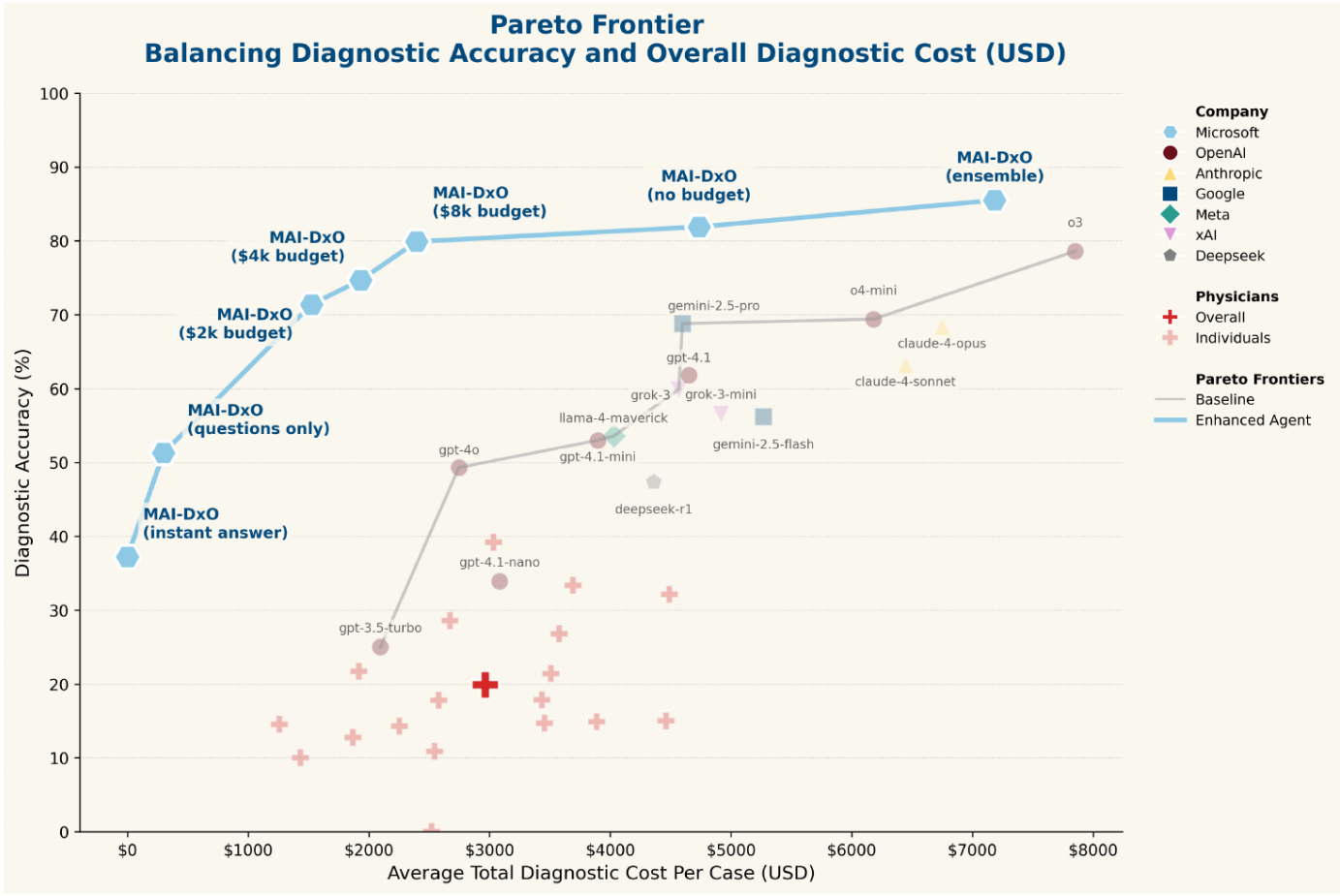
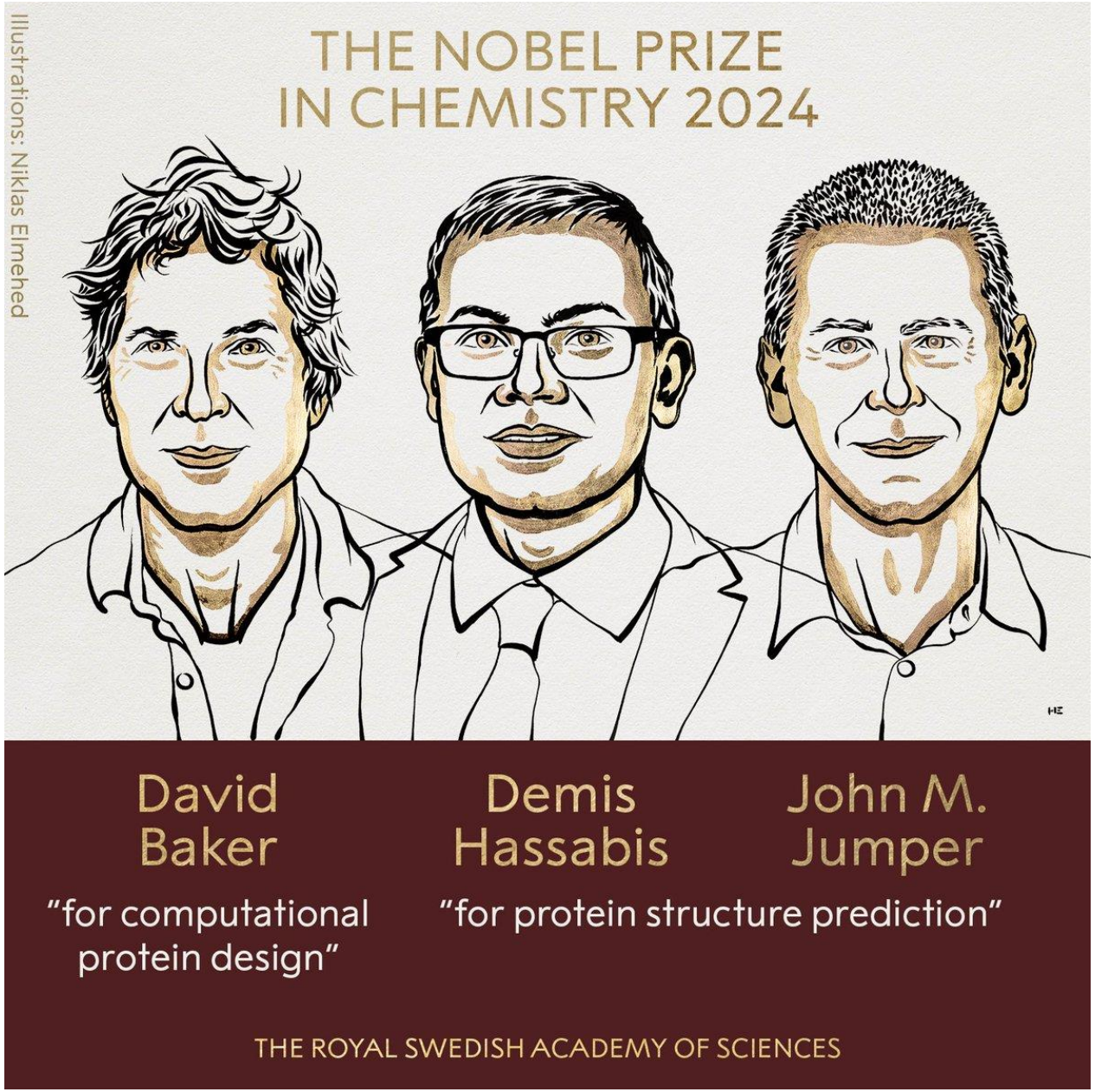


Figure 7: Pareto-frontier showing diagnostic accuracy versus average cumulative monetary cost for each agent. Off-the-shelf models were evaluated using a uniform baseline prompt (see Figure 4). MAI-DxO, built on top of the o3 model, achieves Pareto dominance over both off-the-shelf models and practicing physicians.

https://arxiv.org/pdf/2506.22405v1

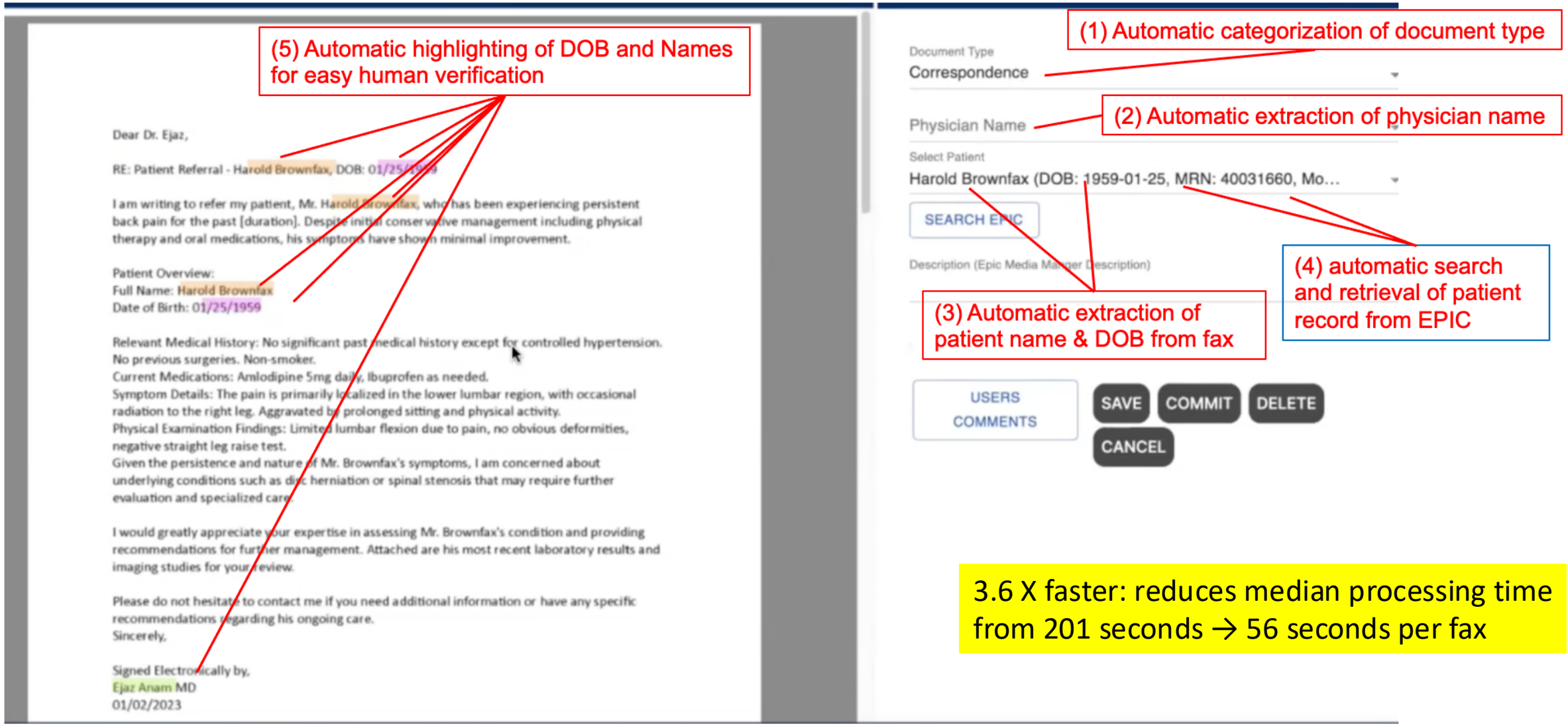
Research

AlphaFold



iDFax

With iDFax, the only thing the human user needs to do is to verify (1) physician name; (2) patient name and DOB; (3) document type



3.6 X faster: reduces median processing time from 201 seconds → 56 seconds per fax

What AI is NOT

- What AI is NOT
  - AI will not replace clinicians – it supplements, not substitutes
  - AI is not infallible — its accuracy depends entirely on human oversight and data quality.
  - AI is not one-size-fits-all — it must be customized to each scenario.
  - AI is not about technology for technology's sake — it's about improving outcomes and efficiency
- What AI Can Never Do
  - Replace human empathy, compassion, or moral reasoning.
  - Possess lived experience or professional judgment.
  - Be accountable for ethical or legal consequences.
  - Create trust or leadership — those come only from people.
  - Make values-based decisions — fairness and dignity are human responsibilities.

Why should we do the AI planning yesterday?

AI is transforming everything—research, education, clinical care, and operations, in fundamental ways.

UTHealth Houston recognized this early and leads with the largest medical AI, data science, and informatics program in the nation.

Our early investments have attracted top talent, accelerated research funding, deployed AI solutions, and redesigned education for future AI leaders.

AI is redefining the future of work.

Strategic coordination is now essential to maintain leadership and scale impact across the institution.

Strategic Objectives of AI Task Force

Articulating	Articulating a compelling institutional vision for artificial intelligence.
Conducting	Conducting a rigorous assessment of current AI capabilities, resources, and organizational gaps.
Defining	Defining strategic priorities to guide AI integration across mission-critical domains.
Recommending	Recommending targeted, high-impact initiatives to accelerate institutional progress.
Establishing	Establishing governance, ethical, and compliance frameworks to ensure responsible AI deployment.
Enabling	Enabling cross-institutional collaboration across schools, clinical entities, and operational units to unlock system-wide value.

Subcommittee Charges

Subcommittee	Primary Charge
Research	Integrate **AI across basic, translational, and clinical research**; develop next-generation AI/ML methods; build focused centers of excellence in emerging domains such as foundation models.
Education	Integrate **AI into curricula** across all schools; develop institutional policies for AI use in education; and design **workforce development programs** to upskill professionals in AI competencies.
Patient Care	Identify, assess, and prioritize **high-impact AI applications** in patient care and QI; develop a **strategic roadmap** to embed AI across clinical workflows for better outcomes, safety, and experience.
Technology and Implementation	**Translate and scale AI innovation** into enterprise solutions across care, education, research, and operations; streamline the path from prototype to production through structured processes
Data Platform	Build a scalable, secure, and governed **data infrastructure** to power AI; implement compliant data-sharing frameworks; and simplify institutional access workflows.
Governance and Policy	Build an **institutional framework for AI governance** with clear policies on privacy, transparency, and accountability, ensuring compliance and mitigating institutional risk.
Partnerships	Deepen and expand **strategic partnerships** with key partners (MHHS, Harris Health, UT System, industry); pursue shared value creation; and align joint initiatives that advance AI in care, research, and education..

Six Months, Four Phases – Started on May 1, 2025

Phase 1	Strategic Landscape Assessment (Month 1–2)
Phase 2	Strategy and Policy Architecture (Month 3–4)
Phase 3	Alignment and Ecosystem Engagement (Month 5)
Phase 4	Finalization and Strategic Rollout (Month 6)

Integrated Institutional SWOT

Strengths

- Broad AI expertise across research, education, and practice.
- Robust data and IT foundations (CDW, REDCap, APCD, GPU, UT-HIP, UT REAL AI).
- Epic platform enabling cross-institutional AI pilots.
- Proven internal innovations (iDFax, No-Show, Lingual AI, ChatBot, etc.).
- Educational leadership through MSBMI and rising AI literacy.
- Collaborations across Texas Medical Center and UT System partners.

Weaknesses

- Persistent data and operational silos between units.
- Inconsistent cataloging, documentation, and data stewardship.
- Limited personnel for sustained AI operations (UI/UX, QA, data engineers).
- Fragmented communication and alignment across units.
- Variable AI literacy and uneven adoption readiness.
- Slow decision-making cycles for innovation rollout.

Opportunities

- Scale AI prototypes into enterprise solutions across missions.
- Integrate research, clinical, and public-health data environments.
- Advance faculty development and workforce AI-training programs.
- Expand data collaborations and industry partnerships leveraging UTHealth's scale.
- Establish UTHealth as a leader in responsible AI education and applied research.

Threats

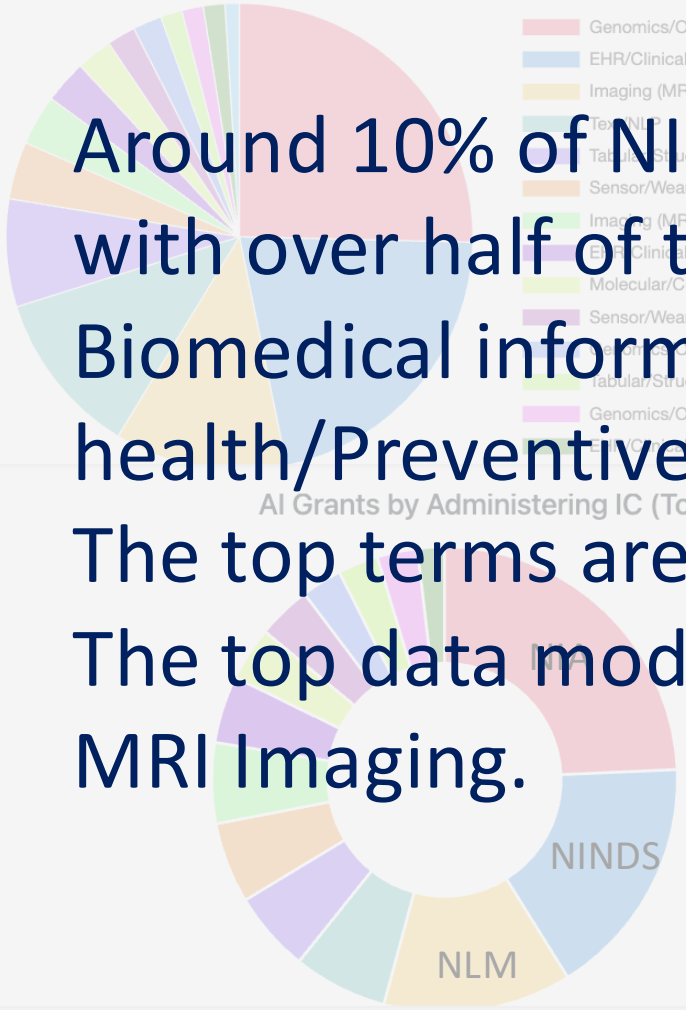
- Evolving compliance and regulatory complexity.
- Competition for AI talent across academia and industry.
- Increasing cybersecurity, privacy, and model-bias risks.
- Vendor dependency and interoperability challenges.
- Funding volatility and organizational fatigue with transformation.

Research — Executive Summary

Mission / Focus	Advance AI research through collaboration, governance, and scaling infrastructure.
Gaps / Challenges	Siloed data and expertise; lengthy IRB/DUA cycles; GPU bottlenecks; lack of reproducibility norms; fragmented governance.
Key Achievements	Built AI Hub architecture; launched sandbox pilots; expanded GPU capacity; submitted NIH center grants
Next 6–12 M Priorities	Deploy AI Hub; develop model-card policy; expand GPU; pursue center grants; cross-school seed grants; implement fast track IRB/DUA process
Resource / Policy Requests	Funding for compute, data infrastructure, seed grant funding, and staff.
Key Deliverables / Metrics	Publications, cross-school grants, model documentation, GPU utilization reduction, IRB/DUA approval time

AI-Related NIH Funding 2021-2024

- Around 10% of NIH grants to UTHealth Houston are about AI with over half of them from NIA, NINDS, and NLM.
- Biomedical informatics, Neuroinformatics, and Public health/Preventive Medicine are the primary topic areas.
- The top terms are AD/ADRD, methods, and novel.
- The top data modalities are genomics/omics, clinical data, and MRI Imaging.



Education — Executive Summary

Mission / Focus	Appropriately integrate AI across curricula and professional programs to promote responsible and ethical use, preparing trainees for the future.
Gaps / Challenges	Uneven AI literacy across schools; limited dedicated training infrastructure; no free protected LLM.
Key Achievements	Approved AI-in-Education policy; initiated cross-school AI literacy programs.
Next 6–12 Mo Priorities	Scale protected LLM access; build a shared repository for LLM resources for education and a training library; finalize policy rollout.
Resource / Policy Requests	Budget and staffing for detailed and specific training materials, content creation, and platform management.
Key Deliverables / Metrics	Number of faculty, staff, and students attending training; develop a communication and marketing plan for centralized resources

HOOP Policy 186: Student Conduct and Discipline (Tracked Changes Version)

POLICY NUMBER: 186
SUBJECT: Student Conduct and Discipline
SCOPE: Students
DATE REVIEWED: January 2022
RESPONSIBLE OFFICE: Office of the Executive Vice President & Chief Academic Officer; Office of Legal Affairs
RESPONSIBLE EXECUTIVE: Executive Vice President & Chief Academic Officer; Vice President and Chief Legal Officer

I. POLICY AND GENERAL STATEMENT

All students are required to obey federal, state, and local laws and to comply with the University of Texas System ("UT System") Board of Regents' *Rules and Regulations*, the rules and regulations of The University of Texas Health Science Center at Houston ("University"), and directives issued by administrative officials of the University or UT System or the University of Texas Health Science Center in Houston ("University or Institution") in the course of their authorized duties. Students are also required to obey standards of conduct appropriate for an academic institution.

II. APPLICABILITY

Each student is responsible for compliance with the provisions of the Regents' *Rules and*

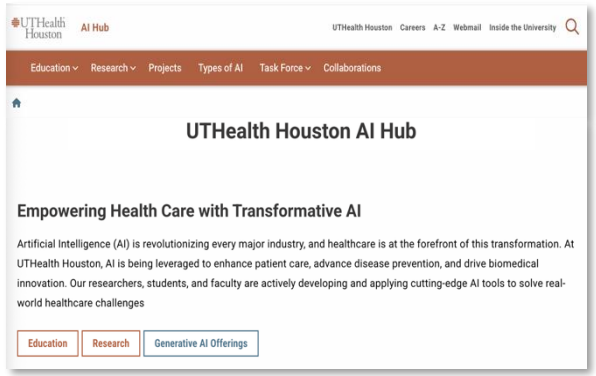
Patient Care — Executive Summary

Mission / Focus	Embed AI into Epic workflows to enhance clinical quality, efficiency, and safety.
Gaps / Challenges	Interoperability challenges and staff shortages; limited resources for integration and scaling.
Key Achievements	Aligned to Epic strategy, piloted Abridge/DAX, iDFax, predictive models, and MyChart AI tools.
Next 6–12 Mo Priorities	Expand/deploy AI tools in clinical workflows; imaging/data integration; deploy predictive and patient-facing AI.
Resource / Policy Requests	Recruit analysts and trainers; fund infrastructure and vendor integrations.
Key Deliverables / Metrics	Time saved per clinician; documentation accuracy; clinician/patient satisfaction; greater efficiency.

Technology and Implementation— Executive Summary

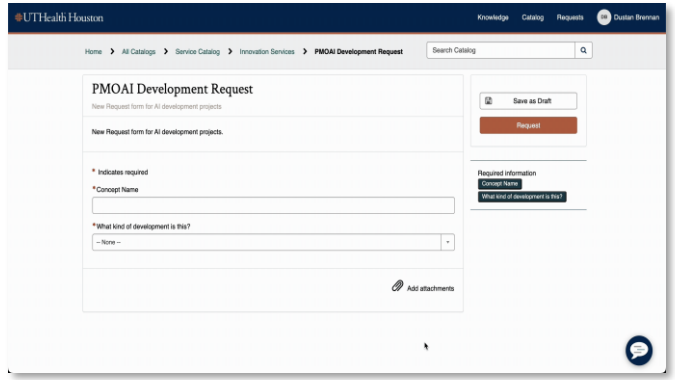
Mission / Focus	Translate successful AI pilots into scalable, production-ready enterprise solutions.
Gaps / Challenges	Limited DevOps roles; fragmented toolchains; no unified pilot-to-production pathway.
Key Achievements	Launched AI Development Accelerator; developed DevOps/MLOps playbook; standardized frameworks; operationalized iDFax and No-Show tools.
Next 6–12 Mo Priorities	Scale AI Development Accelerator under PMO oversight; implement testbed governance; set enterprise KPIs; formalize vendor evaluation.
Resource / Policy Requests	Funding for product roles and DevOps staff; infrastructure modernization support; create shared testbeds.
Key Deliverables / Metrics	Scaled pilots; time-to-deployment; measurable ROI.

UTHealth AI Management Platform(s) Timeline



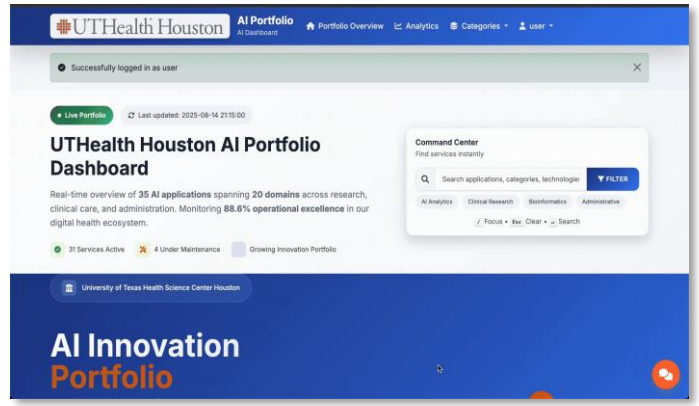
UTHealth AI Hub
(aihub.uth.edu)
Launched Summer 2025

- One source for all things AI for the University



AI Accelerator
Launched October 2025

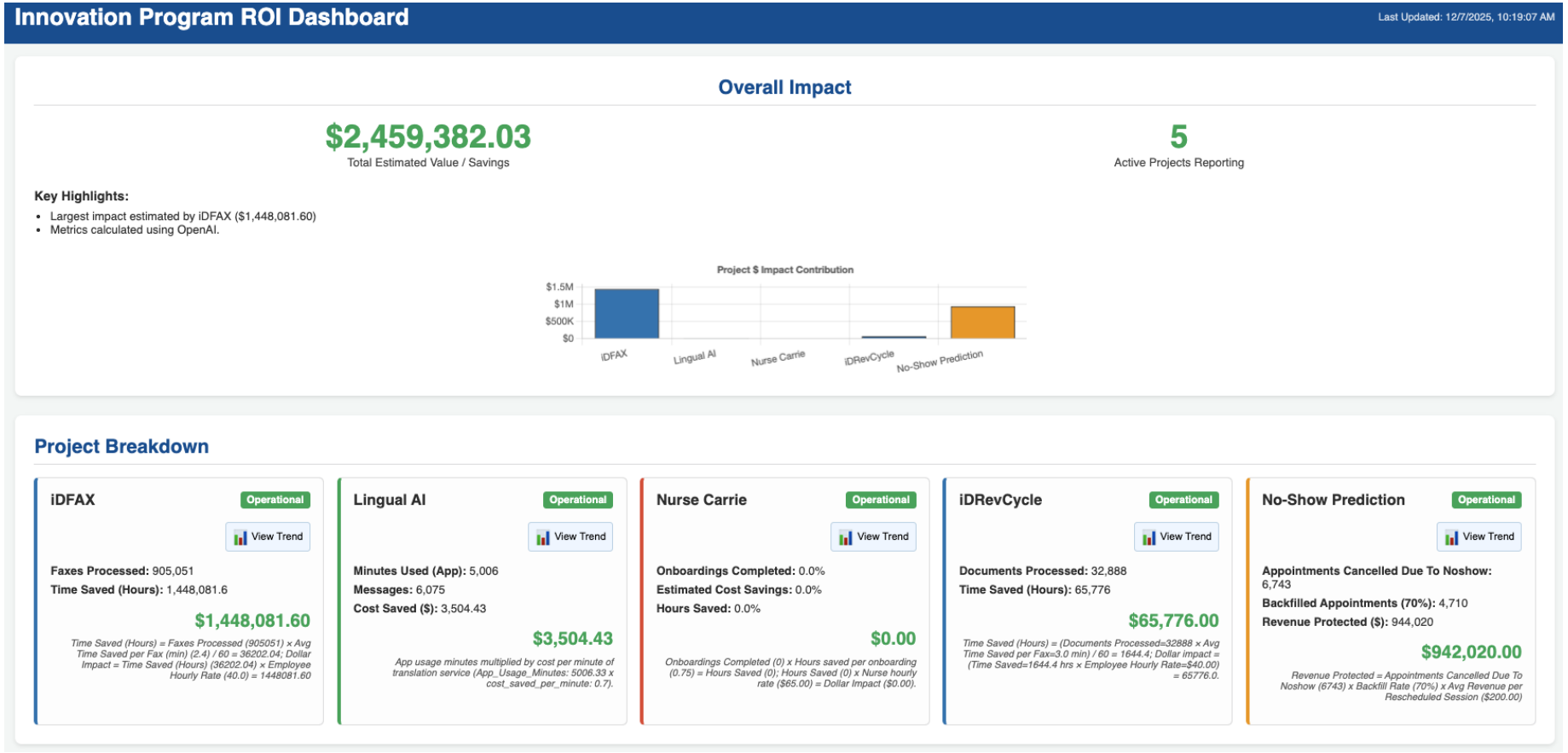
- Formed to help development and implementation of AI solutions



UTHealth OneAI
Launching 2026

- ”One stop shop” to obtain licensing and access to all AI solutions for the University – Will be linked to the AI Hub.

Return on Investment Tracking



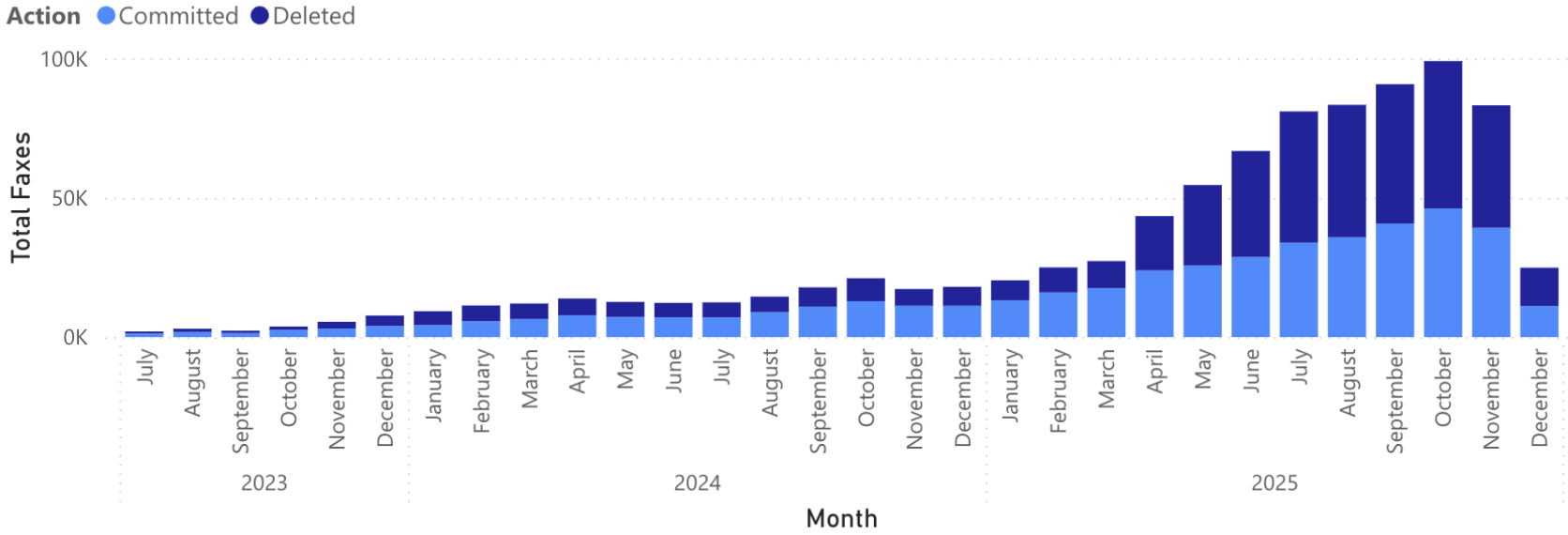
This is a snapshot of the ROI from some of our ongoing projects where we track key metrics.

Key highlights:

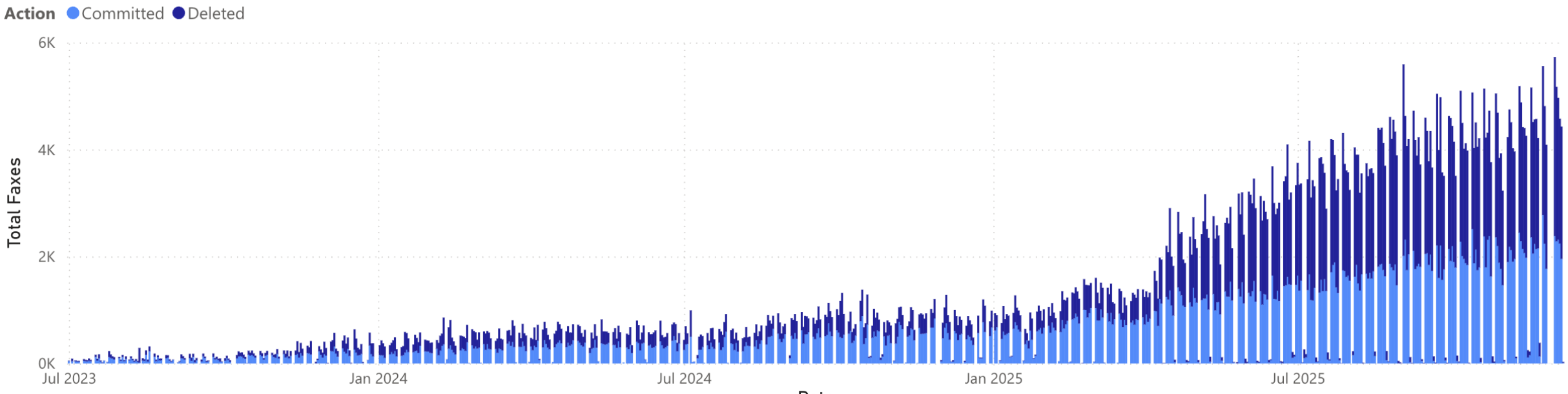
- The iDFAX initiative has led to savings of about $1.5 per fax processed, which has a significant impact given our volume (~1 million/year).
- The No-show prediction project has helped reduce thousands of empty appointment slots, allowing us to optimize scheduling and better utilize our resources.

dept	faxline	Faxes
[redacted]		3010
[redacted]		2498
[redacted]		7763
[redacted]		5208
[redacted]		5837
[redacted]		8598
[redacted]		676
[redacted]		207
[redacted]		6203
[redacted]		4407
[redacted]		18617
[redacted]		1261
[redacted]		4906
[redacted]		6513
Total		**896516**

Total Faxes by Year, Month and Action



Total Faxes by Date and Action



Data Platform — Executive Summary

Mission / Focus	Build trustworthy, governed data architecture supporting AI development and analytics.	Use data for multiple institutional purposes.
Gaps / Challenges	Persistent data silos; lack of stewardship roles; limited metadata consistency; lack of data validation; resource scarcity.	• We have data, but what do they mean? • Are they "correct"?
Key Achievements	Identified high-value datasets; Some policies in place; Policy harmonization in progress.	Have and recognize important data sets.
Next 6–12 Month Priorities	Implement data catalog; implement data lineage, validation and audit tools/processes; assign stewards; modernize data governance and use policies.	Answer: • What are these data? (Documentation) • Where are they? • Who is in charge? • How do I access the data?
Resource / Policy Requests	Investment in Fabric/Purview/Informatica stack; funding for data validation and governance staff.	Infrastructure for organizing and making sense of data across the institution.
Key Deliverables / Metrics	Datasets cataloged; data access request turnaround; compliance audit completion.	

Clinical and Administrative Datasets at UTHealth and Affiliated Institutions

	Available & Implemented	Available But Not Implemented	Unavailable, But Desired	#Patients or Data Volume	Contact	More information	Data Governance	Responsible for updating
UTH Owned								
• UTP Clinical Data	x			3.9 million	big.arc@uth.tmc.edu	https://big.uth.edu/bigarc/	Umbrella Protocol	Elmer Bernstam
• UTP Administrative Dat	x			6.9 million	big.arc@uth.tmc.edu	https://big.uth.edu/bigarc/	Umbrella Protocol	Elmer Bernstam
• UTP Imaging		x		367,694 patients			Umbrella Protocol	Shayan Shams
• UTP OMOP CDM	X			6.75M (4.35M at least one diagnosis)	big.arc@uth.tmc.edu		Umbrella Protocol	Hongfang Liu
• Dental Clinical	x			519,344 patients				Greg Olson
• Dental Imaging	x			167,149 patients				Greg Olson
• HCPC	x			115,652			Umbrella Protocol	Hongfang Liu
• Pathology	x						Umbrella Protocol	
UT System Owned								
• UT-HIP Vizient	x			?			Not for research	UT System/Murphy
• UT-HIP Data Platform			X	20M		Building, does not yet exist	System Umbrella IRB	Hongfang Liu
• UT Employee Benefit		x		0.6 million			Not for research	UT System
Affiliated Clinical Partners								
• MHHS TMC Vizient	x							Hongfang Liu
• MHHS Cerner		x		30M (before deduplication)	big.arc@uth.tmc.edu	https://big.uth.edu/bigarc/	Umbrella Protocol	
• MHHS Imaging	x			31,586,098 Studies			Umbrella Protocol	Shayan Shams
• Harris Health Clinical			X	?			Umbrella Protocol	
• Harris Health Vizient	x			?				
• GHHC COVID	x			~1 million	Micaela Sandoval Micaela.N.Sandoval@uth.tmc.edu	Healthconnect Texas - Healthconnect Texas This cohort includes individuals diagnosed with COVID-19 between 2020 and 2022	Data is not currently available for direct access. Data requests may be considered accompanied by ethics approval and possible financial agreements	Cecilia Ganduglia
• GHHC Population Health (Community Disease Surveillance)	x			~750,000	Micaela Sandoval Micaela.N.Sandoval@uth.tmc.edu	Healthconnect Texas - Healthconnect Texas This cohort includes a representative sample of Harris County residents with eligible health records	Data is not currently available for direct access. Data requests may be considered accompanied by ethics approval and possible financial agreements	Cecilia Ganduglia
Statewide								
• TX APCD (commercial & Medicaid & Medicare Advantage)	x			~24 million	https://sph.uth.edu/research/centers/center-for-health-care-data/data-request		Available for research (1/1/2026). Data request process on website	Cecilia Ganduglia
• TX-Medicare FFS	x			~4 million/year	https://sph.uth.edu/research/centers/center-for-health-care-data/data-request		Limited access	Cecilia Ganduglia
Nationwide								
• IBM MarketScan	x			89 million	https://sph.uth.edu/research/centers/center-for-health-care-data/data-request		Limited access to sph	Cecilia Ganduglia
• Medicare 5% National Sample	x			~4 million/year	https://sph.uth.edu/research/centers/center-for-health-care-data/data-request		Limited access	Cecilia Ganduglia
• BigMouth Dental Data Repository	x			6.4M	bigmouth@uth.tmc.edu	https://www.uth.edu/bigmouth/	Access provided after BigMouth Project Review Committee approval	
• Vizient (National)	x			15 million				?
• IQVIA	X			112M (25-50% coverage depending on data subset)	big.arc@uth.tmc.edu	https://big.uth.edu/bigarc/	Current contract expires 9/20/2025	Elmer Bernstam
• Epic Cosmos	X			300M	Elmer Bernstam	https://cosmos.epic.com/	Requires Epic access	Elmer Bernstam
International								
• UK Biobank	x			500,000	https://www.ukbiobank.ac.uk/	https://www.ukbiobank.ac.uk/	£9000/3 years per project. Request mechanism: https://community.ukbiobank.ac.uk/hc/	

Governance and Policy— Executive Summary

Mission / Focus	Ensure institution-wide ethical, secure, and compliant AI use through transparent governance.
Gaps / Challenges	Pending policy approval; limited cross-functional bandwidth for reviews; limited enforcement capacity.
Key Achievements	Drafted HOOP AI policy; established AI review workflow (AIHub + ServiceNow); initiated vendor oversight.
Next 6–12 Mo Priorities	Formalize AI policy; expand oversight of AI systems; establish AI leadership structure.
Resource / Policy Requests	Formalize AI Risk management; support compliance and audit processes.
Key Deliverables / Metrics	Policy implementation rate; number of HSAIS systems reviewed; oversight frequency.

Governance and Use of Artificial Intelligence

Policy Number:	**###**
Subject:	Artificial Intelligence
Scope:	All UTHealth Houston faculty, staff, students, contractors, and business units.
Responsible Office:	Office of the CIO.

I. Policy and General Statement

The University of Texas Health Science Center at Houston ("University") strives for safe, lawful, and ethical use of artificial intelligence ("AI") in clinical care, education, research, and administration, including compliance with applicable state and federal laws and regulations.

To meet these aspirations, the University employs several strategies in the various uses of AI:

- **Inventory**: All AI systems must be registered in a central inventory.
- **Continuous Oversight**: All AI systems (e.g., cybersecurity, spam, analytics) follow inventory and review processes.
- **Risk Assessment and Monitoring of Heightened Scrutiny Artificial Intelligence System**: Any system that is intended to either make a consequential decision on its own or be a controlling factor in that decision (i.e., the main reason or able to change the outcome) require impact assessments, transparency, monitoring, and documentation.
- **Ethics Standards:** The University, the University community, and University partners must comply with the Artificial Intelligence Code of Ethics developed by the Texas Department of Information Resources.

This policy is intended to provide guidance to the University community concerning the

Partnerships — Executive Summary

Mission / Focus	Develop high-impact partnerships supporting innovation, operations, and data sharing.
Gaps / Challenges	Need structured engagement mapping and clear IP/revenue frameworks.
Key Achievements	Defined 5+ strategic partnership areas; initiated collaborations with Epic, AWS, Microsoft, and TMC partners.
Next 6–12 Mo Priorities	Launch AI Partnership Council; finalize legal templates; activate 5 priority partner pilots.
Resource / Policy Requests	Clarify IP and funding models; formalize agreements via OTM and SPA.
Key Deliverables / Metrics	Partnerships formalized; co-funded pilots; external funding secured.

$25 Million in Funding Granted to Launch the UT Research, Engineering, and Application Laboratory for Healthcare Artificial Intelligence (UT-REAL-Health-AI) Initiative.

This systemwide initiative builds on UT-HIP and will establish a coordinated infrastructure to advance AI across all UT health campuses.

The UT Research, Engineering, and Application Laboratory for Healthcare Artificial Intelligence (UT-REAL-Health-AI) initiative has received $25 million in total funding—$15 million approved by the Texas Legislature and $10 million allocated by the UT System Board of Regents.

Core Deliverables (originally planned)

01

A Comprehensive Institutional AI Strategy, articulating the vision, priorities, and path forward.

02

Subcommittee Strategic Reports, detailing insights and recommendations across seven core domains.

03

A robust AI Governance and Compliance Framework, addressing data ethics, security, risk, and regulatory alignment.

04

A Stakeholder Engagement and Communications Plan, designed to support internal alignment and external positioning.

Recommendations

Develop an AI Vision (Example):

- **Shape the future of human health as one of the first AI-native health science universities**,
  - where AI is architected into the fabric of data, workflows, culture, governance, and decisions;
  - continuously learning to power smarter care, faster discovery, more efficient operation, and redefined education and workforce training.

Institutional Structure — Unified Leadership for AI:

- **Establish a University-wide AI Leadership Council** by transforming the existing AI Task Force and its subcommittees into a long-term governance body.

- **Create a supporting arm, the Office of Artificial Intelligence,** with designated officers for critical roles

Implementing Institutional AI Strategy in Next Tactical Phase

- **Integrate institutional AI strategy** across research, education, patient care, technology, data, and partnerships through coordinated governance and transparent oversight.