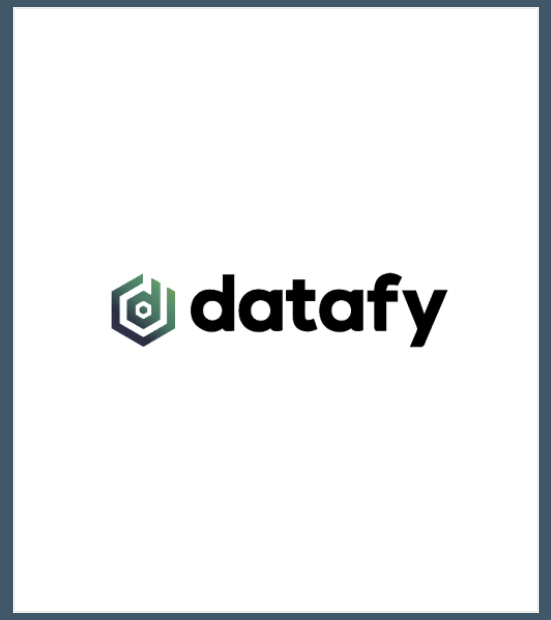
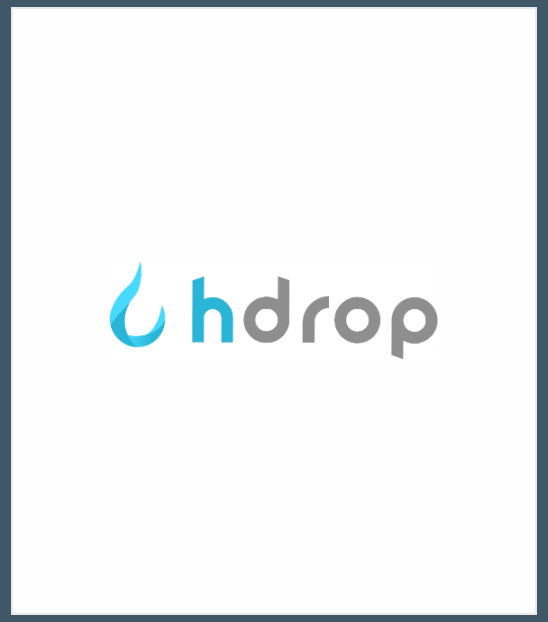
UAMS®

Institute for Digital
Health & Innovation

DISCLOSURES





EXECUTIVE SUMMARY

IDHI manages $42.4MM annually across 33 programs, which fund 17 areas of UAMS across the service lines and colleges. We have a staff of approximately 200 from COM and ICE & fund 89 additional associates within UAMS.

Clinical Informatics is responsible for overseeing the integration and optimization of all clinical data systems within UAMS. We focus on improving the efficiency, quality, and effectiveness of patient care through the use of technology and data. We are a staff of approximately 8 informaticists (MDs, RNs, PharmDs) with affiliated fellows, trainers, physician builders, and matrixed IT analyst staff.

1. Clinical
2. Research / Grants
3. e-Link / Broadband / USAC
4. Operations & Education
5. Innovations

   Partnered with BioVentures

IDHI TIMELINE: OUR JOURNEY

2003
High-Risk Pregnancy Program

2007
UAMS e-Link

2008
Stroke Program

2010
South Central Telehealth Resource Center

Virtual Interpretive Services

2011
Trauma Image Repository

2012
Learn on Demand

2014
Sickle Cell Program

2018
Traumatic Brain Injury Program

2019
Institute Founded

TeleSANE

2020
HealthNow

2022
Rural Telehealth Evaluation Center

IDHI CLINICAL

HealthNow

10+ service offerings

High-Risk Pregnancy & POWER

Partnering with Drs. Manning, McElfish, and Callaghan-Goru

2700+ Annual Visits

TeleStroke

62 hospitals, 1500+ consults

94% of Arkansans now live within a 30-minute drive of a stroke ready hospital.

ARConnect

3000+ visits since inception

Adult Sickle Cell

Trauma Hand

800+ consults completed

Burn Telemedicine

700+ consults completed

Trauma Image Repository

87 sites, including Tennessee, Missouri and Texas

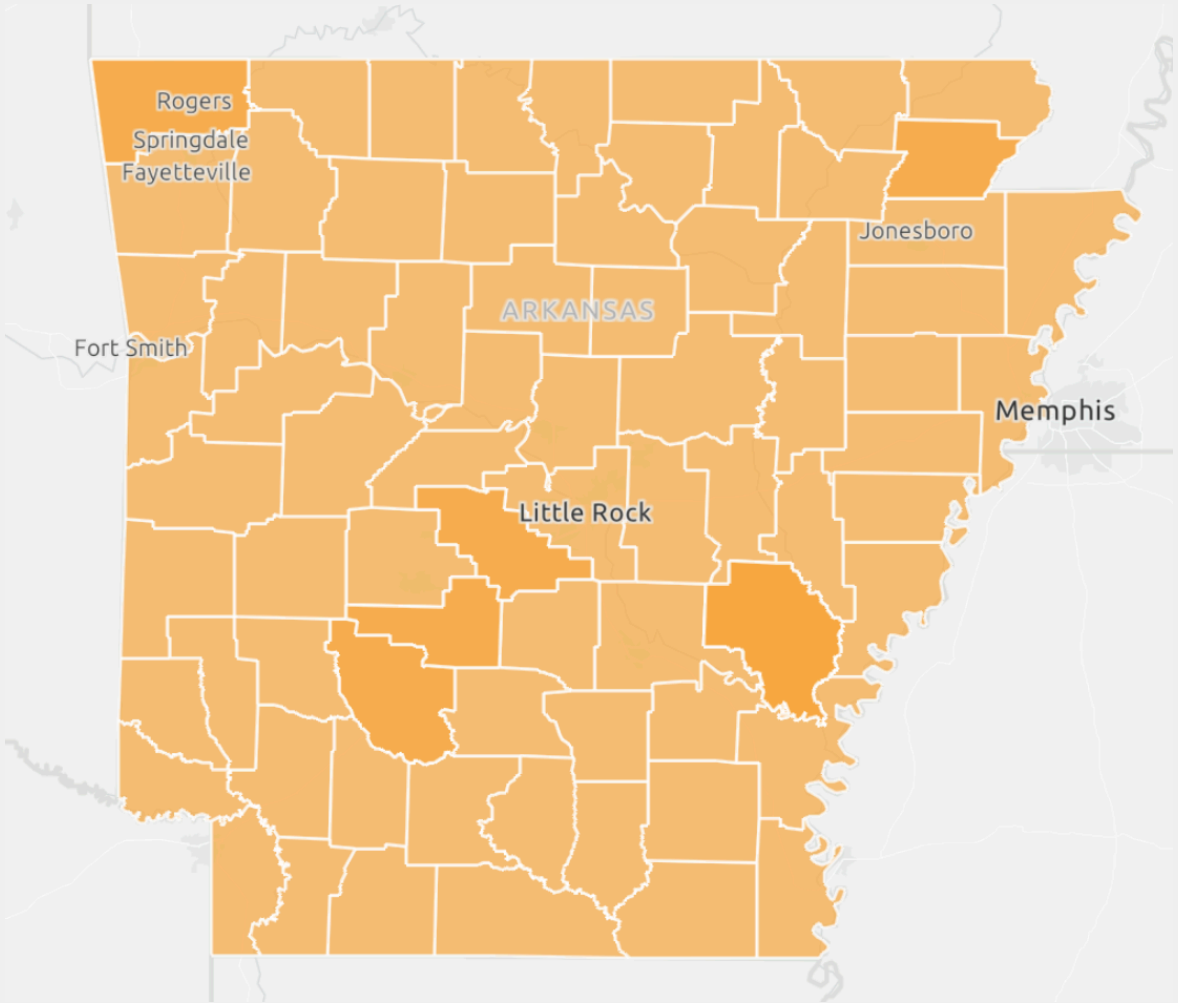
Concussion Screening

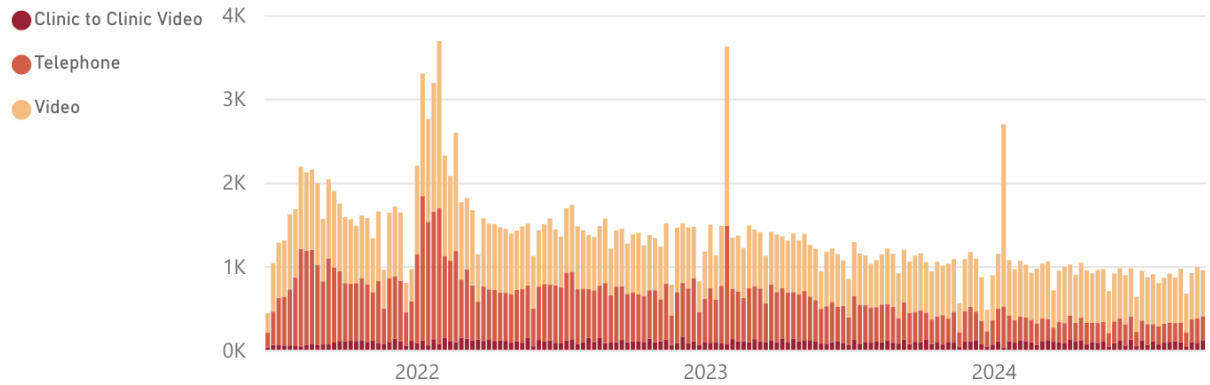
Online Brain Injury Screening and Support System (OBISSS)

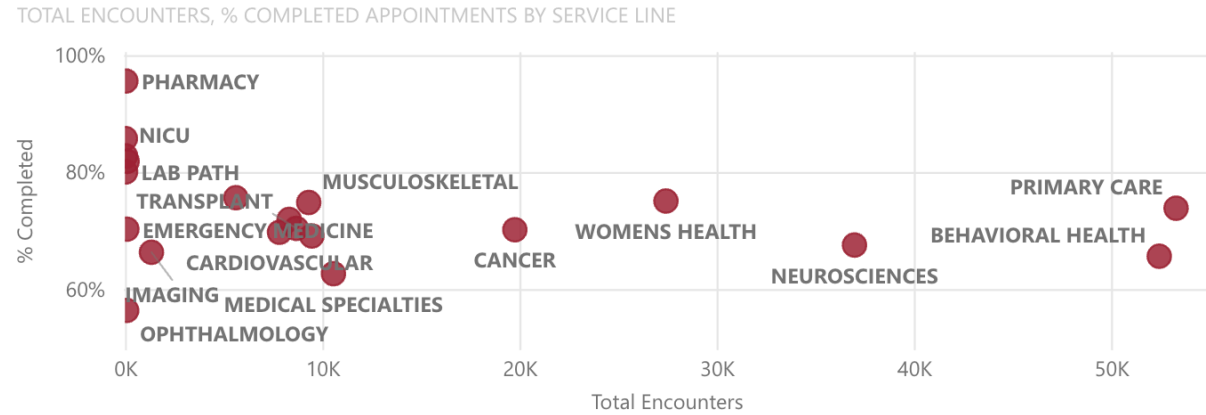
TeleSANE

38 current spoke sites

Rehab Network







Visit Type	Total Patients	Total Encounters
FOLLOW UP	44451	92343
NEW PATIENT	8310	9258
IDHI HIGH-RISK ULTRASOUND	3387	6470
PSYCHOTHERAPY 60 MIN	3296	21453
PHONE CONSULT	2672	2867
NUTRITION CONSULT	2353	2513
RETURN GYN	2225	2808
SAME DAY	2224	2542
MEDICINE CHECK	1985	6606
POST-OP	1973	2176
IDHI HIGH RISK PREGNANCY US - SINGLE - 60 MIN	1843	1888
RETURN OB	1411	2090
TELEMEDICINE - NON MYCHART	1384	1497
Total	**68942**	**176294**

Patient Race	Total Patients	Total Encounters
White	43091	111786
Black or African American	20130	50898
Other	3074	6745
Unknown (for use if patient refuses or fails to disclose)	1285	3148
Asian	723	1846
American Indian or Alaskan Native	388	1424
Native Hawaiian or Other Pacific Islander	126	240
	125	207
Total	**68942**	**176294**

IDHI RESEARCH/GRANTS

Rural Telehealth Evaluation Center

Evaluates telehealth practices to promote rural adoption and policymaker support.

Funding: Center $4.2M/4 years
Broadband Pilot: $1.5M/3

South Central Telehealth Reseach Center

Supports telehealth integration in healthcare, classrooms, and communities to serve the south's medically-underserved rural populations

Funding: $1M/3 years

Delta HealthCare Services 1

USDA Funding: $1M/ 3 years

Outcomes: Established 3 telehealth training centers in the Delta – UAMS East, JRMC- Pine Bluff and ARHP – Lake Village.

550 participants trained through these Centers.

Delta HealthCare Services 2

USDA Funding: $1M/2 years

Outcomes: Telehealth Technology Training (400 students/ yearl)

Virtual Reality Training for first responders

Establishing paid summer internships for K-12 students and faculty

Upcoming

Health Science Innovation and Entrepreneurship component of TRI CTSA.

New

ADH-CDC Health Disparities Grant Funding Extension - Telehealth
$1M additional funding for continuation of services

Challenges

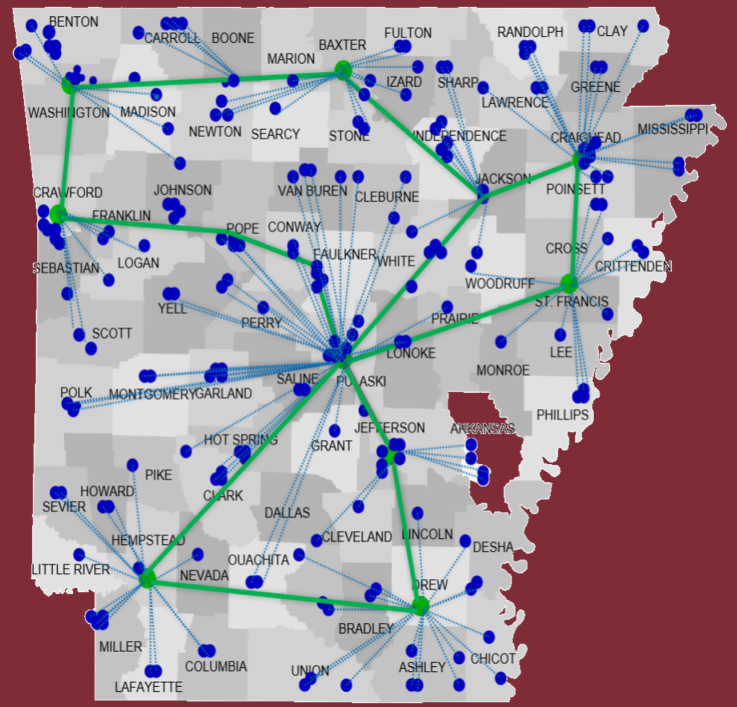
A deep enough PI pool
NSF Funding - NSF Engines Grant
Multicenter collaborations

ACTIVE GRANTS

Opportunity Name	Title	PI	Direct Sponsor
NIH Research Project Grant (R01)	Trauma Institutional Priorities and Teams for Outcome Efficacy (TIPTOE)	Brochhausen / Sexton	NIH/National Institutes of Health
Distance Learning and Telemedicine Grant	UAMS e-Link Network Project	Sanford	US Department of Agriculture
National Initiative to Address COVID-19 Health Disparities	UAMS eLink ADH COVID-19 Collaboration ($1M Extension)	Sanford	Centers for Disease Control & Prevention
Regional Telehealth Resource Centers (Supplement)	Telehealth Covid-19 Broadband Pilot Evaluation	Eswaran	Health Resources & Services Administration
Delta Health Care Services	ATTRACT	Eswaran	US Department of Agriculture
Advanced Nursing Education - Sexual Assault Nurse Examiners (ANE-SANE)	Tele-SANE Training Program - Continuation	Searcy	Health Resources & Services Administration
Capital Readiness Program	Arkansas Collaborative for Technological and Innovative Venture Equality (ACTIVE)	Sexton	US Department of Commerce Minority Business Development Agency
Traumatic Brain Injury State Partnership Program Partner State Funding Opportunity	IDHI Traumatic Brain Injury Program	Bercher	Administration for Community Living
Enhancing School Capacity to Address Youth Violence	School Telemedicine in Arkansas for Lessons in Trauma-Informed Education (STARLITE)	Ellis	DOJ Office of Juvenile Justice and Delinquency Prevention (OJJDP)
Using Telehealth to Improve Care, Access and Quality of Sexual Assault Forensic Exams	Sexual Assault Nurse Examiner Network for Evidence-based Telemedicine	Searcy	US Department of Justice
Digital Equity Challenge: Talent for Tomorrow	TADAH, Technology Advancement for Digital Academic and Healthcare Careers	Stokes	US Conference of Mayors
Rape Prevention and Education Grants	Protective Environment & Community Empowerment (PEACE)	Connors	Arkansas Commission on Child Abuse, Rape, and Domestic Violence
HIV PEP Pilot	Intervention +Telehealth +HIV PEP e-provision Stage 1b Pilot	Searcy	The Gordon and Betty Moore Foundation's Betty Irene Moore Fellowship for Nurse Leaders and Innovators
ACCARDV Funding	TeleSANE Education	Searcy	Arkansas Commission on Child Abuse, Rape, and Domestic Violence
Arkansas Department of Health Block Grant	TeleSANE Traveling Clinical Skills Lab	Searcy	Centers for Disease Control & Prevention
HRSA Telehealth Center of Excellence - University of Mississippi Medical Center	Conference Planning	Ross	Health Resources & Services Administration

UAMS E-LINK, USAC, & BROADBAND

Plans, implements, and manages telemedicine programs with improved broadband, up-to-date equipment, and training



- e-Link

  560 Members, 800+ Endpoints

  24/7 Tech Support, ~16,000 tickets/year

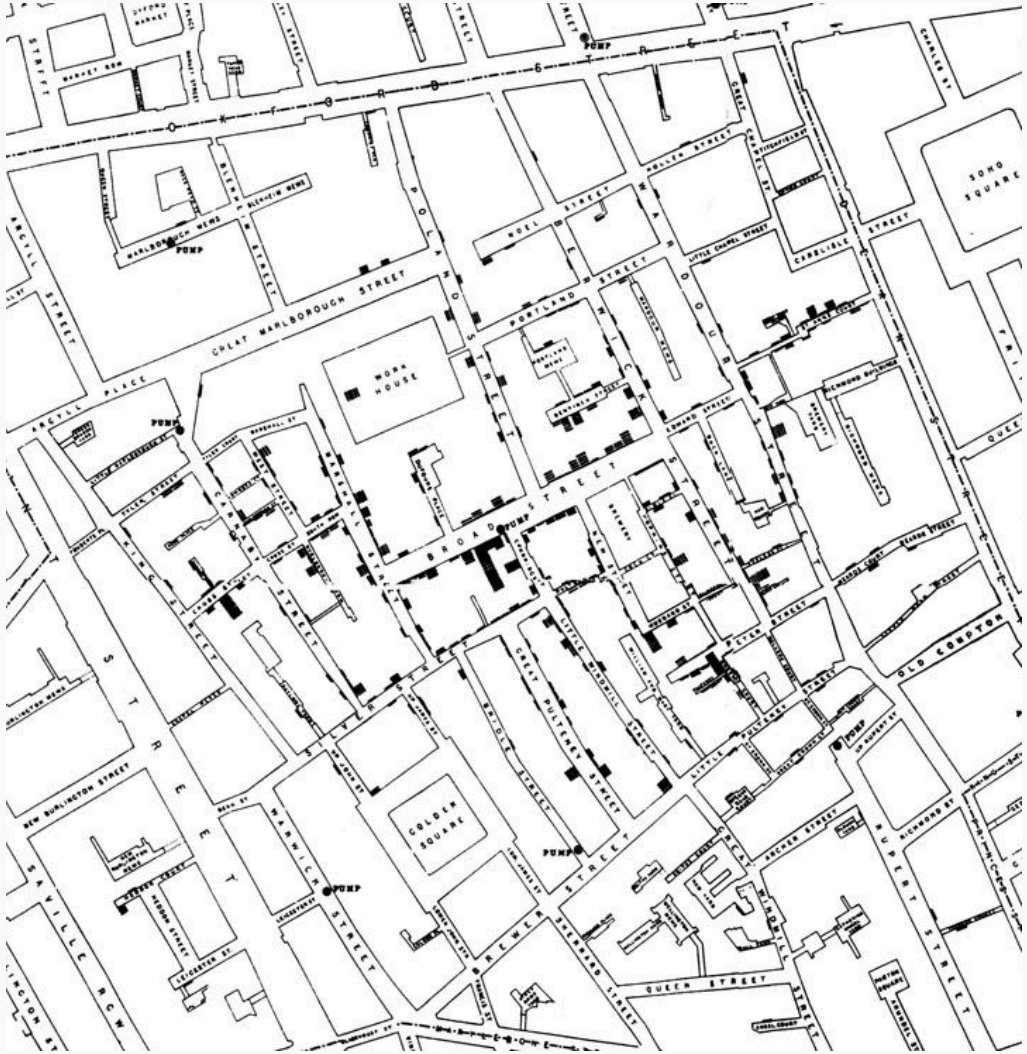
- USAC

  $3.5+ Million saved via USAC discounts this year on complete UAMS network overhaul.

- Broadband

  Completed Arkansas Rural Connect, targeting ISP and Indigenous peoples partnerships.

  Completed the Affordable Connectivity Program Grant



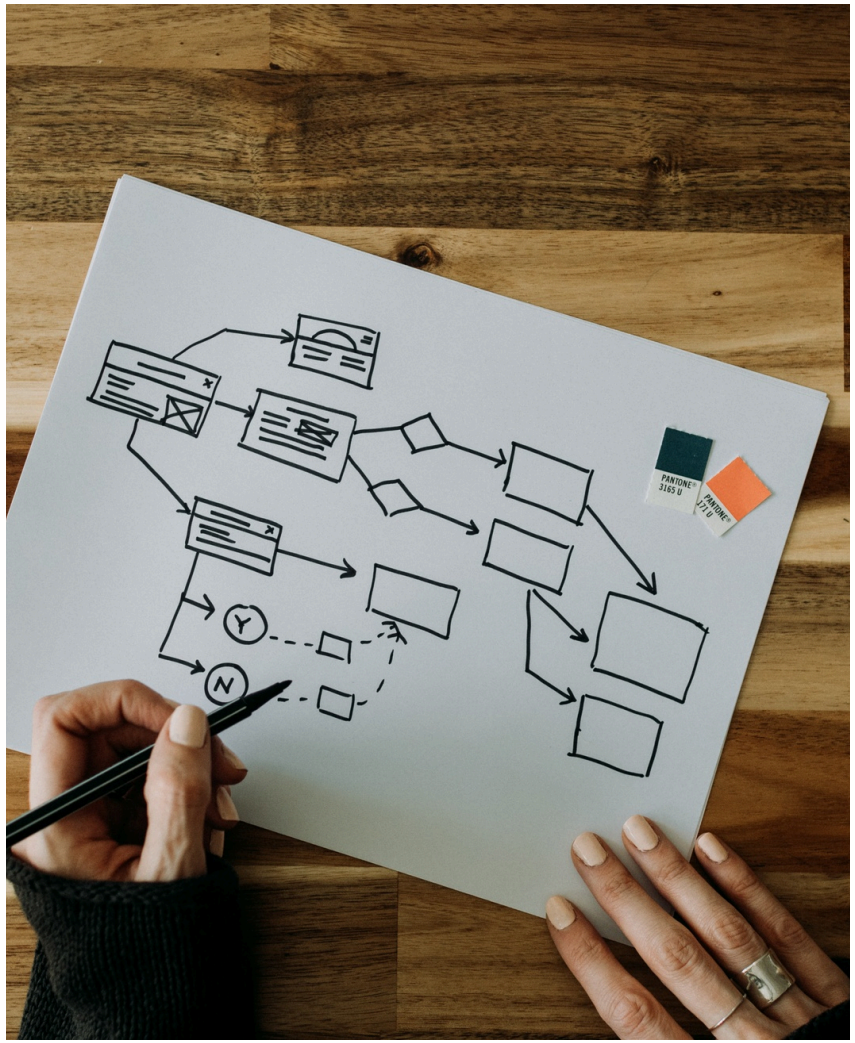
HEALTHCARE INNOVATION & ARTIFICIAL INTELLIGENCE

Innovation and healthcare are inextricably intertwined. And data science has been at the heart of it throughout.

Healthcare technology and innovation have seen tremendous growth in recent years, with AI starting to play a major role.

SOME EXAMPLES

- Sepsis Prediction
- Risk of Readmission
- Appropriate Imaging Ordering
- Dosage Calculations
- Automated Billing & Coding
- Healthcare Delivery Logistics



AI IN DIAGNOSIS & TREATMENT

Wearables & Remote Patient Monitoring

AI has the potential to revolutionize healthcare by providing more accurate and efficient diagnosis and treatment.

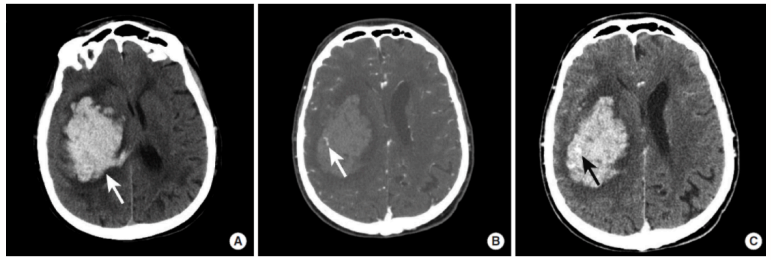
1. Access to more data than ever before.
2. A proportionally limited ability to integrate it into our decision making.
3. Challenges include storage, visualization, documentation, and reimbursement.
4. Currently questionable improved patient outcomes & value-based cost savings.

IDHI ML/AI PROJECTS & INTELLECTUAL PROPERTY

1. ML grant scan app to pair investigators to grant opportunities
2. Machine Learning Model to Predict OR Time - Optimize Scheduling: predicting future UAMS operations
3. Method for Automating & Standardizing Preference Cards
4. Automated flows for ICU, Med/Surg, and Medicine Status
5. Created a trach collar with monitor for SpO2, HR, and Temp
6. Automatic cell Counter for Pathology (Stained)

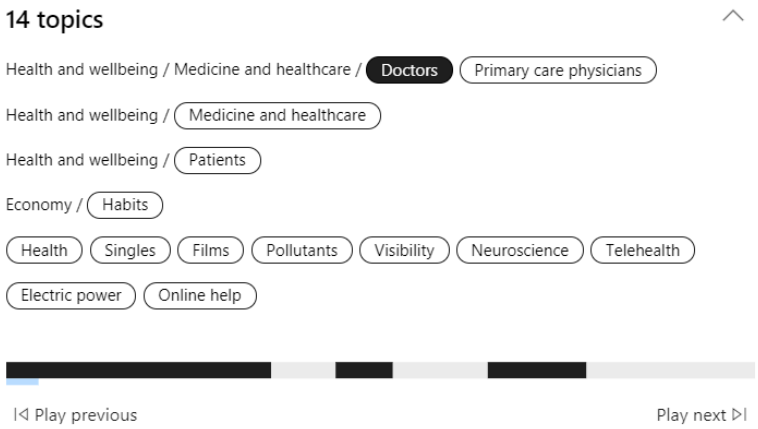
WAIT, THERE'S MORE!

A few neuroscience projects the lab team has been working on.



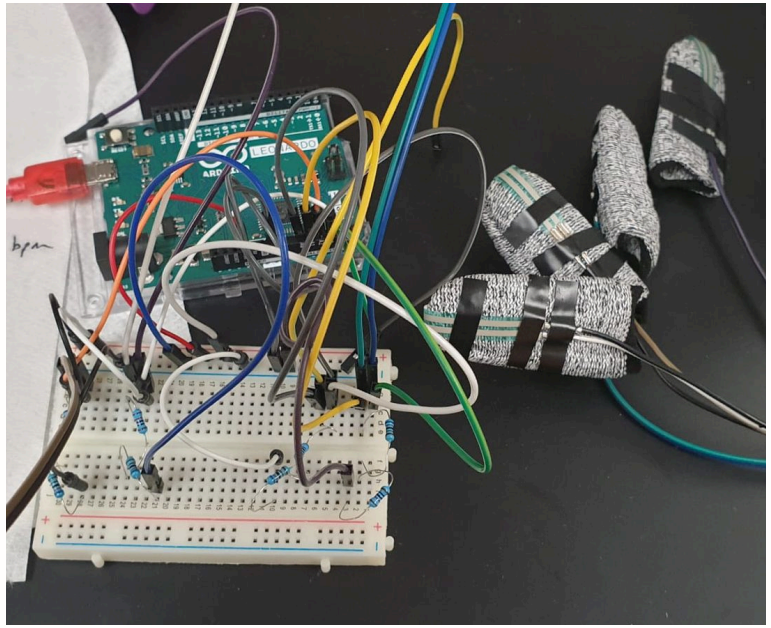
Brain Hemorrhage Segmentation and Volume Control

Developing an AI to automatically segment potential bleeding and calculate bleed volume.



Automatic Video Indexer and Insight Analyzer

Extract your content by searching for any text, person, or insight in videos.



Glove Monitor for Deep Brain Stimulation

Objectively measuring and scoring patient's movements.

SET THE TABLE

	Customer	Company	Entrepreneur
Value Prop	Need	Solution	Team
Industry	Market	Competition	Network
Strategy	Sales	Production	Organization