



BELMONT
DATA & AI
COLLABORATIVE

IMPACT REPORT

Spring 2026

Letter from the Executive Director

Dear Belmont Community and Partners,

I am pleased to share an update on the continued progress of the Belmont Data & AI Collaborative (BDAIC). This report represents one of our most productive periods to date, marked by research milestones, expanded community partnerships, and AI-powered tools delivering measurable real-world impact.

Our recent work advanced across three core areas:

Empowering Data-to-Action (D2A)

- Expanded DCS Foster Care analysis in partnership with Belmont Innovation Labs and EveryChildTN
- Presented Heart of Nashville findings to the Metro Public Health Department
- Published manuscript on hypertension disparities in Family & Community Health

Deep Capability Development

- Launched AI Data Lake Steward, an autonomous agentic system for data governance
- Delivered AI Workshops, reaching faculty and staff across campus
- Deployed AI PR Guardian to secure critical software repositories
- Advanced the AI Literacy Framework to support pilot launch

Strategic Partnership Impact

- Engage Together
 - Updated VPIs for Alabama & Tennessee
 - Supported the Tennessee Bureau of Investigation's Labor Trafficking strategy
- NashvilleHealth: Advancing Phase II of the NashvilleHealth Data Hub
- Hope Summit: Presented 'Bridging the AI Accountability Gap' alongside industry leaders

We remain committed to making AI approachable, ethical, and actionable. As demand grows for effective governance, workforce readiness, and scalable programs, BDAIC is positioned to help organizations navigate these challenges.

Jeff Donahoo, Ph.D.

Executive Director, Belmont Data & AI Collaborative

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Our Core Mission

From Data to Action with an AI-Enabled Strategy

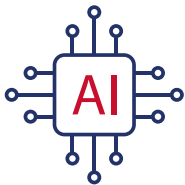
At the heart of BDAIC's work lies a fundamental mission: **to bridge the critical gap between data and meaningful action.** We operate on the conviction that data, no matter how vast, is **potential energy.** Our purpose is to convert that potential into action through targeted, measurable, and scalable interventions that **solve real-world problems.** These achievements are a direct reflection of our commitment to an AI-engaged, action-oriented philosophy.

We **move beyond the traditional model** of static data dashboards and retrospective reports. Instead, we **embed artificial intelligence** as the active core of every project. Our AI approach means we begin by asking: **"What decision does this inform? What action does this automate? How does this empower a person or improve a process?"** This ensures that every model we build and every insight we uncover is directly connected to meaningful, real-world outcomes.

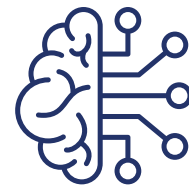
Belmont AI Summit

Bringing Belmont Faculty Together to Explore AI in Teaching, Research & Practice

The AI Summit brought faculty together to examine the evolving role of AI in teaching, research, and academic practice. The morning featured expert insights, faculty-led examples, and Belmont's AI roadmap.



Topics on the Agenda



- Redemptive AI Task Force findings
- Belmont AI Commons updates
- AI Policy & Accountability
- AI Literacy — certificates and training paths
- Teaching Center: Best practices from faculty
- AI in Research - expanding role and resources
- Faculty- and student-centered AI tools
- Switchpoint partner: AI education software

Belmont University approaches AI through a Christ-centered mission, affirming that technology must serve human flourishing. Three guiding principles: Human Primacy, Human Direction, and Transparency & Consent.

Heart of Nashville Shows Measurable Blood Pressure Improvements

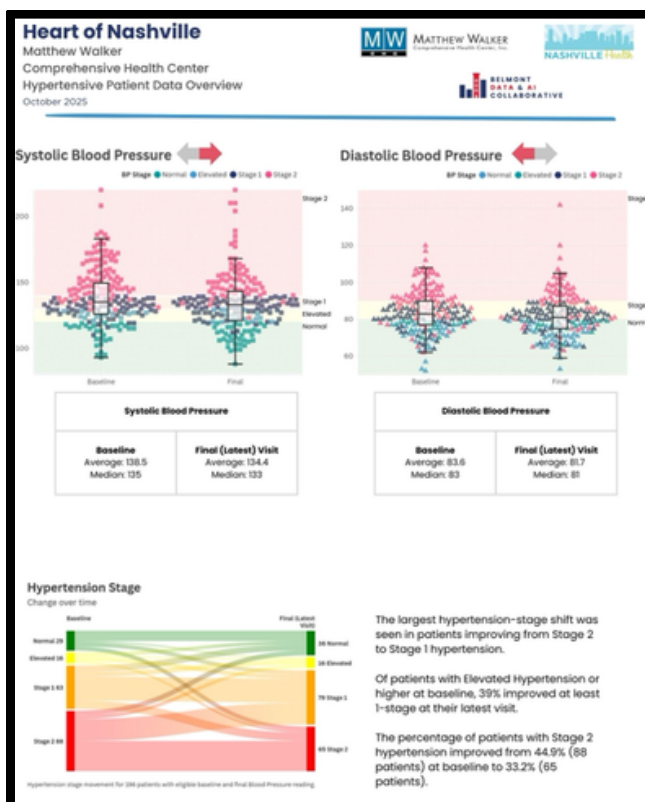
Presentations to Metro Public Health Department

The Heart of Nashville program shows what's possible when data and community collaboration drive health policy. BDAIC's findings gave Metro Public Health Department leaders the evidence to tailor **a scalable model for tackling health disparities citywide, built on integrated clinical care, transportation, and nutrition support.**

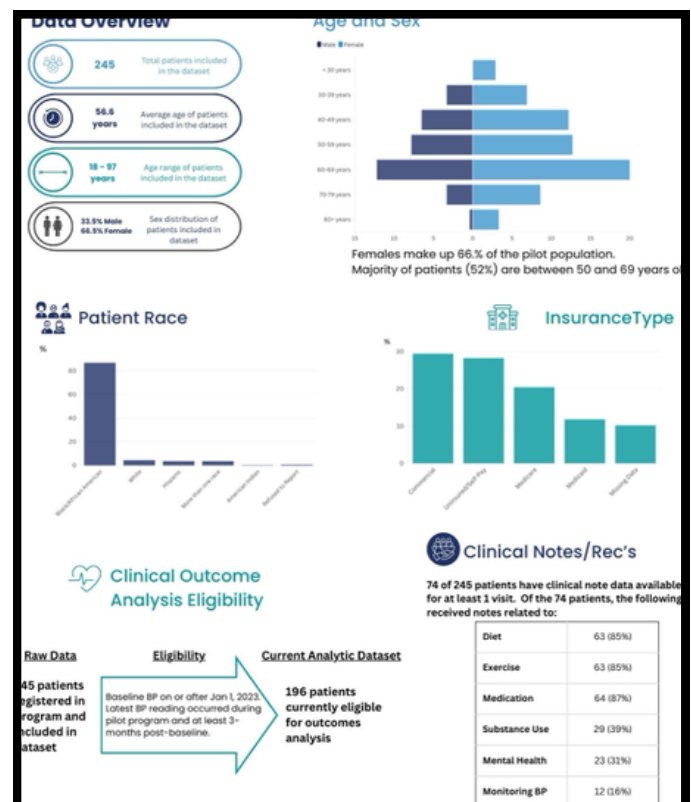
Key Highlights from the Presentation

- Shared early indicators of progress, including meaningful improvements in blood pressure among participants
- Highlighted engagement with preventive care services across the target community
- Demonstrated how community-driven partnerships and data-informed strategies address longstanding health disparities
- Strengthened strategic alignment with Metro Public Health leadership to support continued collaboration

Blood Pressure Improvements



Preventive Care Improvements



BDAIC analytics presented to Metro Public Health Department and NashvilleHealth

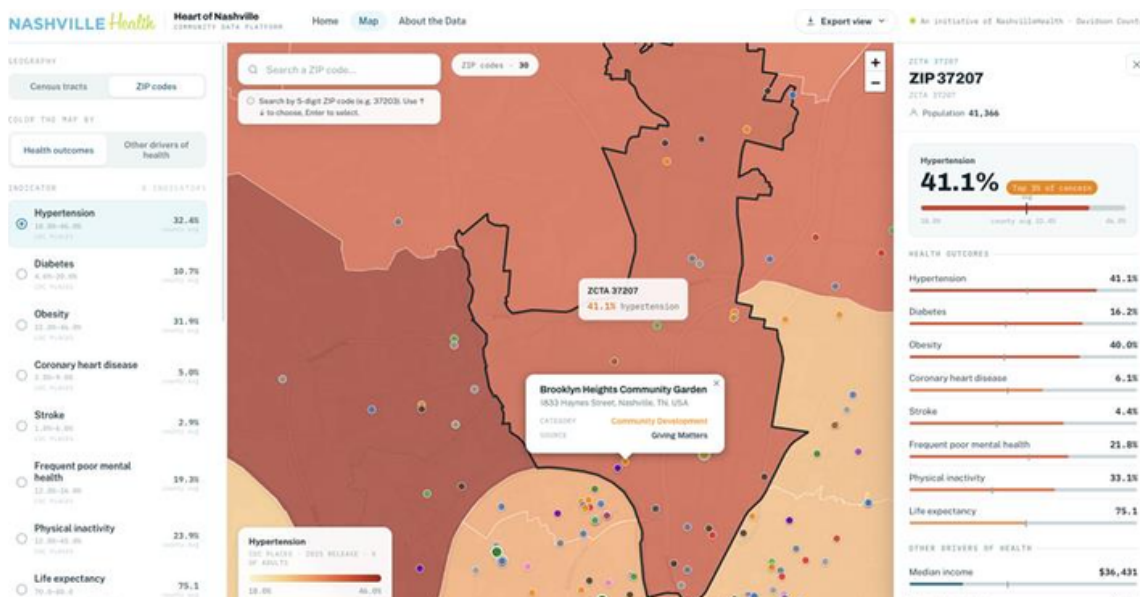
Empowering Communities



Heart of Nashville Community Data Platform

Data empowers communities to drive change. In partnership with NashvilleHealth, BDAIC developed and deployed a **Community Data Platform** that gives residents direct access to data and analytics, helping them identify local needs, advocate for effective solutions, and measure progress over time.

Community Data Platform



"BDAIC has been instrumental and foundational in our work within the Nashville Wellness Collaborative, and the living and breathing testament of that is the Heart of Nashville hypertension project. To identify any challenge, you need to validate that it exists, and that initial validity in terms of the state of hypertension in Nashville was provided by BDAIC. Once we chose to take on that challenge, the next thing to measure is impact, and again, BDAIC has been instrumental in showing that our project is working, that people are improving their high blood pressure."

Mark Yancy

Chief Executive Officer, NashvilleHealth



Peer-Reviewed Publication Highlights BDAIC Analytics

Hypertension Disparities Research

Published in: *Family & Community Health Journal*

BDAIC's hypertension disparities research, conducted in partnership with community and academic collaborators, was published in the journal *Family & Community Health*. The manuscript demonstrates BDAIC's leadership in producing high-impact, community-engaged analytics that inform regional public health strategy.

What the Research Found

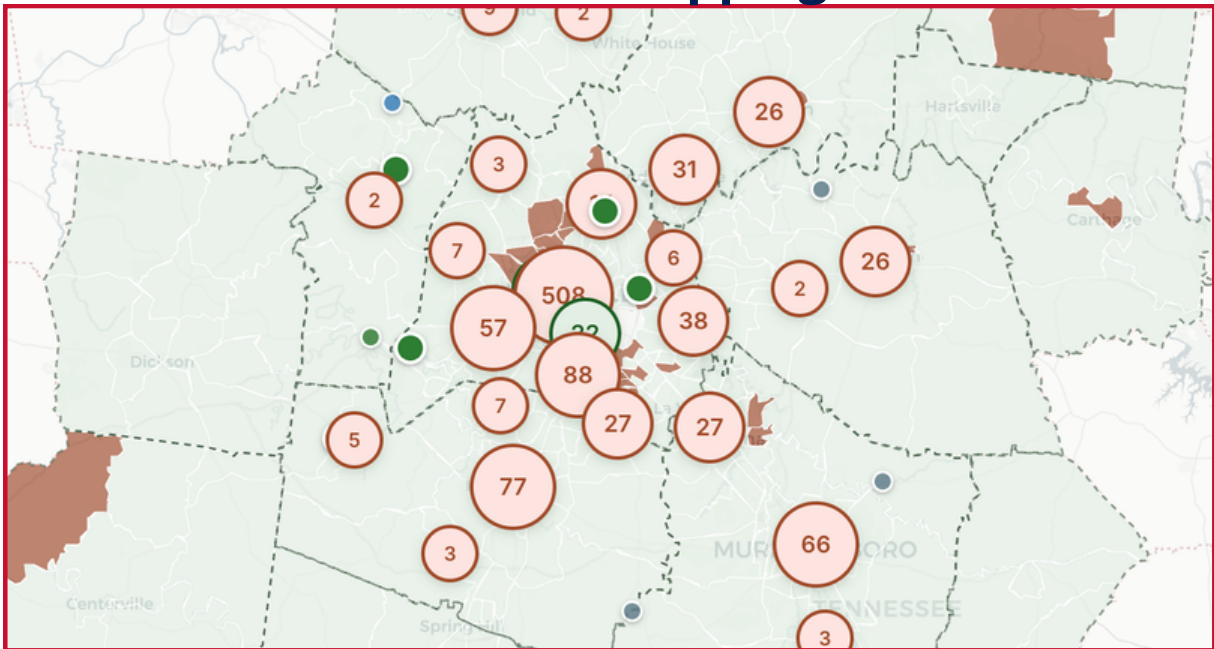
- Conducted a comprehensive ZIP code-level analysis of hypertension across Nashville
- Integrated demographic, socioeconomic, and health outcome data from the U.S. Census Bureau and CDC PLACES
- Used advanced clustering techniques to identify five distinct population groups with different cardiovascular risk profiles
- Demonstrated how socioeconomic hardship, housing instability, and unequal access to care are associated with concentrated pockets of elevated hypertension
- Highlighted disparities affecting lower-income and predominantly Black urban communities

Pinpointing the Need to Improve Food Access

Mapping Nashville Food Insecurity

BDAIC developed and deployed the Food Access Mapping Tool to help The Nashville Food Project identify neighborhoods where food insecurity intersects with high rates of diabetes and hypertension. Powered by BDAIC's AI ecosystem and data lake, the solution was rapidly delivered and now informs TNFP's service area expansion decisions. The tool transforms community need from a general understanding into a precise, data-driven roadmap for action.

Food Access Mapping Tool



"We have long had a broad picture of where need exists in Nashville. What we lacked was the ability to see it with enough precision to guide decisions. The tool the Belmont Data & AI Collaborative built lets us see it tract by tract: food access, chronic disease, and household income laid over every place we already work, and the more than 1,400 organizations working alongside us. It has turned a question we used to answer by instinct, where we should grow next, into one we can answer confidently with data. It has also changed how we talk with funders and partners. We can move from anecdote to a shared picture, point to the same tract, and ask the questions our plan asks of every decision: who benefits, who decides, and who is being left out."

- CJ Sentell, CEO, The Nashville Food Project

BDAIC Strengthens Tennessee's Fight Against Injustice

Labor Trafficking Research & Intelligence Platform

Labor trafficking thrives in the gaps: untracked initiatives, isolated organizations, and critical patterns that remain difficult to identify. BDAIC built **AI-powered tools to close those gaps**, transforming fragmented, labor-intensive research into a unified, searchable intelligence platform. As a result, Engage Together and the Tennessee Bureau of Investigation (TBI) can now view the full landscape of anti-trafficking efforts nationwide, **expanding visibility, strengthening coordination, and concentrating focus on developing solutions rather than collecting data.**

Platform Capabilities

- 1,057 total initiatives cataloged
 - 587 unique organizations
 - 776 focused specifically on labor trafficking
 - 386 training initiatives
- AI confidence scoring per initiative
- Full-text search by organization, description, or tag
- Filter by trafficking focus, service type, target audience, and geographic scope
- Export filtered data capability

BDAIC Labor Trafficking Initiative App

@admin
admin@example.com
Logout

**BELMONT
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Filters
Search initiatives
Search by organization, description, or tag
Trafficking Focus
All
Service Types
Choose options
Target Audiences
Choose options
Geographic Scope
Choose options

**Training & Capacity Building Initiatives**
Explore training programs, educational initiatives, and capacity building efforts focused on combating labor trafficking.

Total Initiatives	Unique Organizations	Labor Trafficking Focus	Training Initiatives	Avg Confidence Score
1057	587	776	386	57.9%

All InitiativesGrouped ViewOverview & Guide

Export Filtered Data

Showing 10 of 1057 initiatives

2024 National Labor Trafficking Conference (The Coterie) (95% confidence)

About: This multi-disciplinary conference will provide information and resources to build capacity to identify and respond to labor trafficking. This year's conference will have several plenaries and workshop sessions that focus on the intersections of labor trafficking and unaccompanied minors, among many other topics. Framework will be doing a Labor Trafficking 101 Pre-Conference training! We hope to see you there!

Labor Trafficking

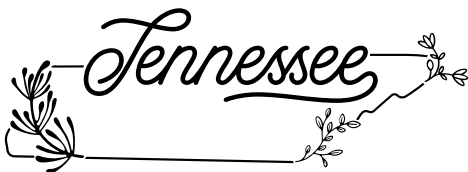
BDAIC Uses AI to Accelerate Impact

Updated VPIs: Alabama & Tennessee

What used to take BDAIC two months can now be completed in weeks. By leveraging the **BDAIC AI ecosystem**, we cut the Vulnerable Population Index (VPI) production time in half, not by rushing the work, but by **rethinking it**. AI surfaced additional risk indicators human analysts might have missed, streamlined the coding process behind each score, and turned a one-off calculation into a **scalable pipeline BDAIC can run for any state**.

Alabama VPI Update

- Refreshed preliminary VPI originally completed June 2025
- Updated with new data sources including:
 - Dark Watch: Real-time counter-trafficking intelligence
 - Alabama Dept. of Human Resources/Family Services
- Added partner organization data layers



Tennessee VPI Update

- Partnership with Engage Together & Tennessee Bureau of Investigation
- First version created 2023, fully refreshed this quarter
- Added new data sources and additional vulnerability domains
- Expanded risk indicator coverage statewide

Transforming Foster Care Outcomes with Data & AI

Tennessee Foster Care Transition Age Youth Analysis

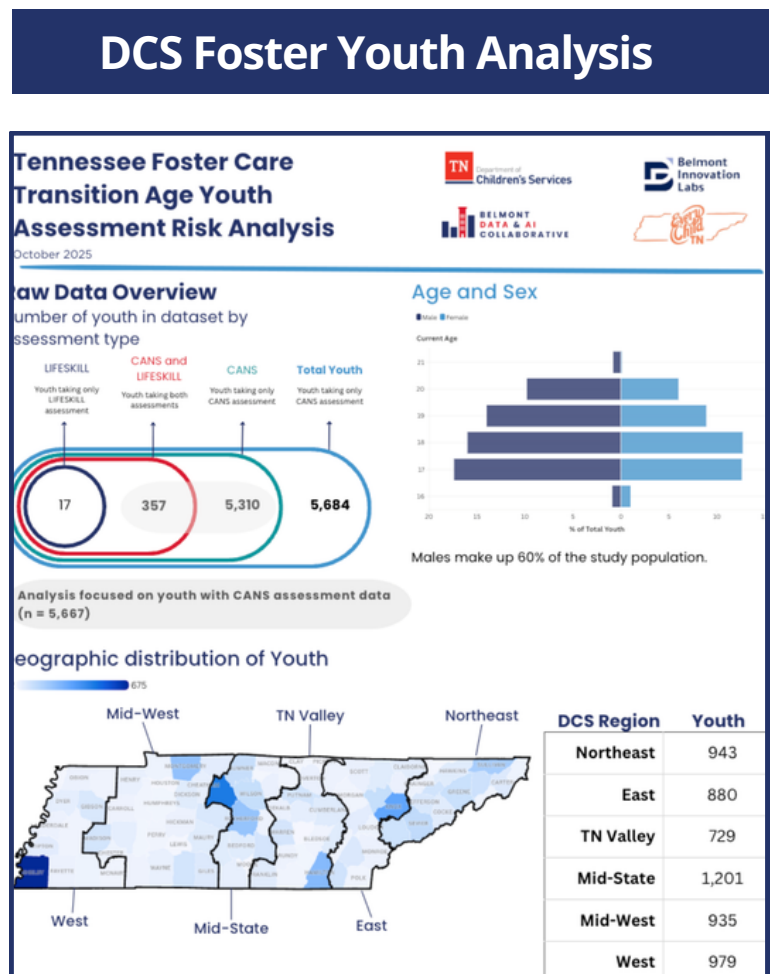
BDAIC partnered with Belmont Innovation Labs, the Tennessee Department of Children's Services, and EveryChildTN to transform data from nearly 6,000 transition-age foster youth into an **interactive dashboard** that is now guiding statewide service delivery and gaining national recognition through the Reconstruct Challenge: Thriving Youth.

Interactive Analysis Report

- Analysis focused on 5,667 youth
- Geographic distribution mapped across 6 DCS regions statewide
- Age and sex analytics
- Visualizations of assessment types: CANS, LIFESKILL, and combined

CANS Indicator Reference Tool

- AI-powered web application for stakeholders
- Maps CANS indicators to three Reconstruct Challenge pillars:
 - Supportive Relationships
 - Mental Health
 - Housing Instability
- Scoring criteria
- Assessment questions for each indicator



BDAIC Thriving Foster Youth Dashboard

Building a Campus-Wide AI Ecosystem

BDAIC advanced a major university-wide initiative designed to strengthen AI engagement across campus, laying the groundwork for a coherent, scalable AI ecosystem that supports skill development and responsible integration.

AI Literacy Framework

AI Literacy Framework Committee

Defining the core AI skills faculty and staff need to thrive in an AI-engaged workplace.



- Five-level competency pathway in development
- Curated learning resources and assessments
- Piloting first levels with the College of Business
- Plans to scale across the full university

Elevating Campus Partners

AI Solutions to Belmont Challenges

School of Physical Therapy

Tracking down accurate, current, curricular information previously consumed considerable time that the School of Physical Therapy Curricular Committee could spend improving the curriculum itself. **BDAIC built a solution that streamlines data curation, turning a manual burden into a fast, dynamic process the committee can trust.**

"The solution resulting from our work with BDAIC has made it easier for the School of Physical Therapy Curricular Committee to access accurate, up-to-date information. Streamlining data curation has reduced administrative burden and has informed curricular innovation. We are grateful for their collaboration."
— Sue Curfman



Thomas F. Cone Sr. Center for Entrepreneurship



BDAIC partnered with the Thomas F. Cone Sr. Center for Entrepreneurship to build **AI tooling for their team**, migrated their hosting onto AWS, and designed and launched their new site at <https://belmontetp.com>.

The real success doesn't end with the website, **it's the operating model**. AI has made it possible for Cone Center staff to edit, update, and redesign the site entirely on their own, with no dependency on BDAIC to keep it running. **That's the model we're after: not just delivering a product, but building capacity inside other Belmont units so they own their own digital future.**

Four Workshops with One Goal: AI-Ready Campus

BDAIC Faculty & Staff AI Workshop Series

BDAIC delivered a series of high-impact workshops, ranging from introductory AI to advanced explainability, equipping Belmont faculty and staff with hands-on tools and real-world applications for teaching, scholarship, and administration.

Workshop details: belmont.edu/data/workshop/

RIP Browser: Embrace the Chrome Over

Sept 10, 2025 | Dr. Jeff Donahoo

AI browser tools for contextual, multi-tab intelligent assistance. Demonstrated agentic AI for automation and accelerated discovery.

You, Me & GPT: A First Date

Oct 2, 2025 | Dr. Anna Grace Usery

Introduction to generative AI in academia. Covered effective prompt engineering with ChatGPT, Gemini, Copilot, Perplexity, and Claude.

Enhancing Qualitative Research

Oct 22, 2025 | Dr. Steven Busby

Positioned AI as a powerful research assistant for qualitative projects. Emphasized the lived human experience in collaboration with AI optimization.

The Explainable Edge: Intro to XAI

Nov 12, 2025 | Dr. Mana Azizsoltani

Introduced Explainable AI (XAI) concepts. Real-world case studies from responsible gambling industry.

Belmont Leads the Conversation on AI Accountability

Hope Summit: Bridging the AI Accountability Gap

In October, Belmont University hosted the Hope Summit: a conference bringing together professionals from across disciplines to foster innovation, collaboration, and the advancement of hope through emerging technologies.

Workshop: Bridging the AI Accountability Gap

Presenters:



Dr. Jeff Donahoo -
BDAIC Executive
Director
&
Dr. Erich Baker -
Vice Provost for
Research



- Explored the growing lack of accountability in AI development and deployment
- Examined resulting risks for businesses, industries, and society
- Simplified pathways to AI accountability to enable greater public trust and adoption

PANELISTS

• **Dr. Pablo Rivas**
Director, Center for AI
and Governance

• **Scott Charter**
Director of AI Strategy,
Oracle

• **Dr. Juan Sanchez**
Chief Academic Officer,
HCA Healthcare

From Compliance Burden to Cultural Advantage

BDAIC AI Accountability Framework

AI systems now drive critical decisions in hiring, lending, healthcare, and criminal justice. Without accountability, these systems perpetuate biases at scale, make unexplainable decisions, and create invisible harms. BDAIC developed a practical framework that helps organizations build responsible AI practices at their own pace, identifying risk areas, and providing actionable guidance for every stage of adoption.

Why Act Now?

- Organizations face mounting risks: reputational damage, legal liability, security vulnerabilities, and eroding public trust
- Building accountability later costs exponentially more than building it in from the start
- Today we choose how to mitigate biases, establish privacy norms, and distribute power in an AI-driven society

The BDAIC AI Accountability Framework — Progressive Maturity Levels

Level 1

Inventory: Identify where and how AI is used across operations - no difficult decisions required

Level 2

Transparency: Explain AI decisions; understand risk by conducting bias audits and harm analysis

Level 3

Risk Analysis: Formal risk analyses examining negative impacts on security, workforce, and mission alignment

Level 4

Stakeholder Input: Share views on benefits and potential problems with affected communities

Level 5

Ethics Governance: Specify AI principles; embed ethics into business strategy through mandatory reviews and human oversight

An Autonomous AI That Governs Our Data Lake

BDAIC AI Data Lake Steward

BDAIC deployed an autonomous AI-driven system to govern, organize, and unlock the value of our cloud data assets. The system moves beyond manual data cataloging to a fully automated, self-governing ecosystem.

Current Impact



How the Steward Works

- Autonomous Decision Making
- Generative Understanding
- Semantic Memory & Search (RAG)
- Conversational Analytics

Enterprise-Grade Security for Pennies a Month

AI-Powered Protection for a Minimal Cost

BDAIC deployed the AI PR Guardian, a fully autonomous AI agent serving as a 24/7 digital gatekeeper for all of BDAIC's software repositories.

61

Repositories Protected

All BDAIC repos

100%

Success Rate

Enterprise-grade

24/7

Coverage

Always on

Pennies

Cost

Per month

What Makes It 'Agentic'

- Reads and understands code changes, not just rule-based pattern matching
- Automatically blocks security risks, e.g., accidental data leaks
- Quickly approves safe updates to keep development moving fast
- Independently manages pull request reviews from student developers
- Streamlines workflow while delivering enterprise-grade security

Practicing What We Preach: AI Built This Report

How AI Supported the Impact Report Development Process

In keeping with BDAIC's AI-engaged philosophy, this report was developed with AI as a core production tool.

Here's how:

Content Organization & Document Review

AI generated an organized outline from all materials in the activities folder, reviewing each document and producing a unified outline covering all sections.

Workback Schedule Creation

AI generated a detailed workback schedule, breaking the project into manageable stages with clear dates and deliverables across the production window.

Page-Level Editing & Content Refinement

For each section, AI refined the content to be more concise and report-appropriate, producing clear summaries without losing key insights



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