
AI Summit
Wednesday, May 7, 2025
STEM Teaching and Learning Facility

AGENDA

9am	Welcome & Opening Remarks
9:15am	Keynote: Lauren F. Klein, PhD
10am	Panel: AI and the Future of Knowledge
11am	Break
11:15am	Panel: AI as a Partner in Research & Learning
12:15pm	Lunch
1:15pm	Working Sessions
3pm	Break
3:15pm	Report out
3:45pm	Closing Remarks

Thomas Jeitschko, PhD
Interim Provost

Bree Holtz, PhD
Director,
Ethics Institute

Marcio Oliveira, PhD
Vice Provost, Teaching & Learning Innovation

Today’s summit is not just a gathering of great minds – it’s a call to action.

What should MSU be doing right now to share an ethical, innovative and inclusive AI future?

Lauren F. Klein, PhD

Why AI Needs the Humanities

AI and the Future of Knowledge

Moderator: Johannes Bauer, PhD
Quello Center Chair in Media and Information Policy
Professor, Media and Information, ComArtSci

Tara Behrend, PhD
John Richard Butler II Endowed Professor
School of Human Resources and Labor Relations, Social Science

Scott Powell, PhD
Chief Data Officer
State of Michigan

Arun Ross, PhD
Martin J Vanderploeg Endowed Professor, Computer Science & Engineering, Engineering

Anjana Susarla, PhD
Omura-Saxena Professor of Responsible AI
Eli Broad College of Business

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AI as a Partner in Research & Learning

Moderator: Gillian MacDonald, PhD

Assistant Professor, History

Director, Lab for Education & Advancement in Digital Research (LEADR)

Mohammad Ghassemi, PhD

Assistant Professor, Computer Science & Engineering, College of Engineering

Thomas Hancock, PhD

Senior Principal, Thought Leadership & Research

Accenture

Dennis Kennedy, JD

Director of the Center for Law, Technology & Innovation, College of Law

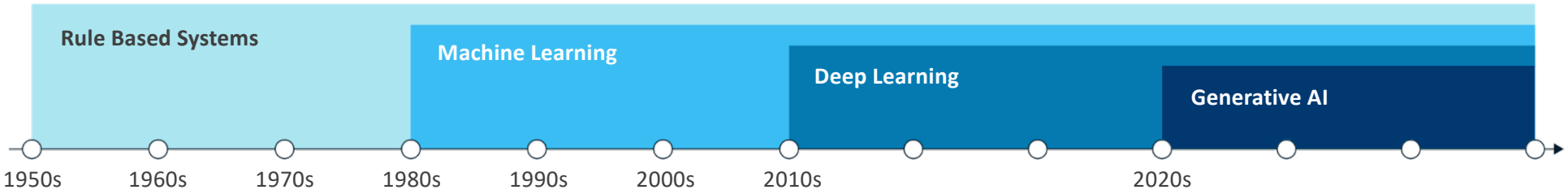
Jiyoon Yi, PhD

Assistant Professor, Biosystems & Agricultural Engineering, College of Agriculture & Natural Resources

College of Engineering

What is AI: technology allowing machines to mimic human capabilities

Current AI excels at specific structured tasks, future technologies will focus on more general unstructured tasks.



Rule-Based Systems (RBS)

Humans provide:
problem, data, tools, approach

Machines provide:
execution

Machine Learning (ML)

Humans provide:
problem, data, tools

Machines provide:
approach, execution

Deep Learning (DL)

Humans provide:
problem, data

Machine provide:
tools, approach, execution

Generative AI (GenAI)

Humans provide:
problem

Machine provide:
data, tools, approach, execution

AI Impact: is large and growing; almost all companies use some kind of AI

Two years after ChatGPT's debut: ¾ of companies either have or want AI, but don't know if they should build or buy.

72%
of Business Leaders

believe AI will provide a competitive advantage to their business

75%
of Customer Interactions

will be managed by AI applications by 2030.

$15.7
Trillion USD

will be added to the economy from AI enhancements by 2030.

Challenge: 70% of companies are having challenges with trust/integration

Most organizations are not “tech native”; struggle with the people, processes, and data needed to achieve AI value.

How AI achieves value: through automation, augmentation and insights

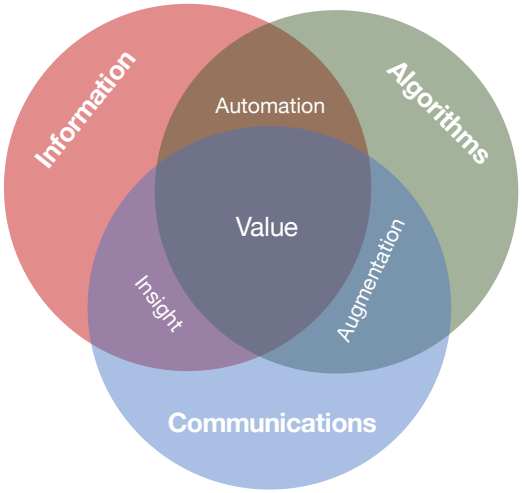
Steps: (1) identify business challenges/opportunities, (2) design AI outcomes, (3) build AI foundations.

AI Foundations

Information: is created when *data* is processed into clean usable form.

Algorithms: are tools that *predict* one kind of information using another.

Communications: are methods for *representing* complex information in simpler forms.



AI Outcomes

Automation: is the use of *algorithms* to convert low-value *information* into high-value information.

Augmentation: is the combination of human and machine capabilities to create more value than either human or machines could alone.

Insights: is the process of *communicating* information so humans can extract value on their own.

Values: are *what* you want to achieve, *not how;* has nothing to do with AI

Values are solutions to existing business challenges or new opportunities, prioritized based on anticipated ROI.

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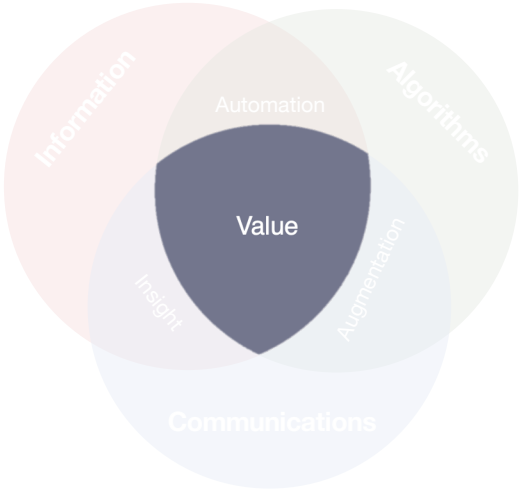

AI Science Outcomes

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AI Outcomes: are *how* we will use AI to achieve the values

AI outcomes define what we should automate, who we should augment, and what insights matter to obtain value.

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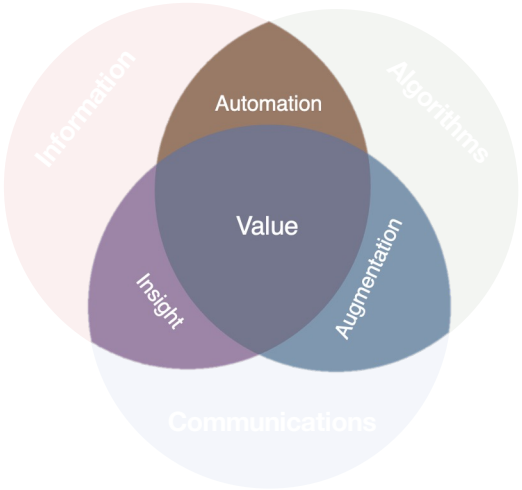

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AI Foundations: are the technologies we need to enable AI outcomes

Each AI outcome lies requires the nexus of two foundational technologies, and supporting initiatives

AI Foundations

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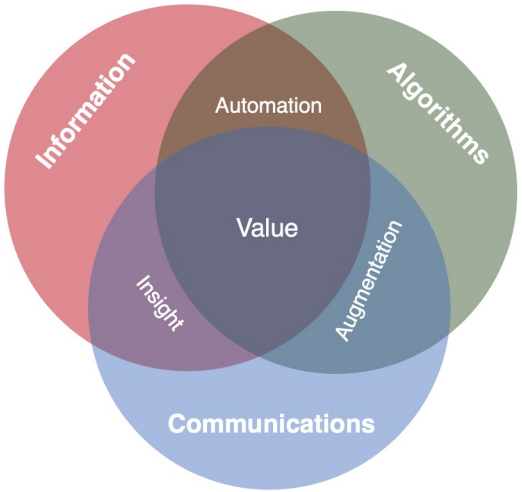

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Risks: exist during prep., implementation, maintenance and use of AI

Risks can be mitigated through transparent design, expert validation, continuous monitoring, and ethical guidelines.

	Preparation risks From failure to prepare		**Implementation risks** From failure to plan/develop		**Maintenance risks** From failure to implement		**Usage risks** From failure to interact	
	 **Transparency**	 **Cybersecurity**	 **Costs of AI Dev.**	 **Confidentiality**	 **Decision-Bias**	 **Antiquation**	 **Over-Reliance**	 **Abuse**
Risk	In regulated sectors, algorithm transparency and auditability are vital to regulators.	If an AI's parameters are leaked, there may be economic and IP losses to the organization.	A custom AI-for-finance solution can cost $650,000+, depending on the features.	AI development can compromise personal data, risking consumer trust and violations (e.g. SSNs).	Unintended bias in models can lead to discrimination in underwriting and loan applications.	AI's effectiveness requires timely, accurate data, and ongoing fine-tuning.	Humans can become overly reliant on AI, leading to mistakes and skill loss.	AI can be misused or "hacked" by humans, leading to unintended consequences.
Mitigation	**Disclose Practices** Be open and clear about practices and methodologies related to the use of AI in the company.	**Test Often** Incorporate a risk register detailing impact, vulnerability, and monitoring protocols.	**Avoid overscoping** Minimize complexity of AI models, hire more senior personnel, or use a third party AI service.	**De-identify** Ensure that data has been anonymized before being used for training or evaluation.	**Engage Experts** Partner with experts to ensure suitable training data and model development practices are being used.	**Periodic updates** Develop a regular refresh to models and data; perform regular tests for domain shifts.	**Accountability** Train staff on AI's strengths and limitations, emphasizing their role in making the final decisions.	**Auditing** Implement mandatory AI audits for staff to ensure that results align with expectations.

From Campus to Corporation: Paths to Discovery

Both Higher Ed. and Industry are leveraging AI to accelerate research and innovation

Research Accelerator

AI Fast-Tracking Discovery

Ethical Guardrails

Shared Standards

Big Data

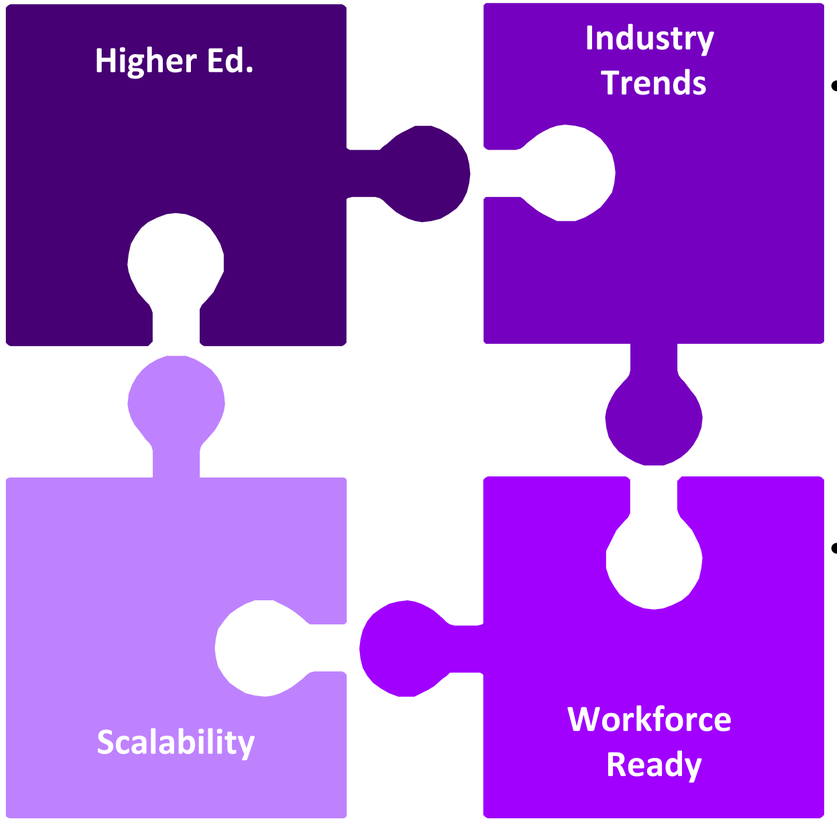
AI Unlocking Complex Data

accenture

Uniting Purpose: Teaching for Agility, Training for Impact

Higher Ed. and Industry are converging to develop adaptable, future-ready individuals

Higher Ed. should stay the course by equipping students with adaptable skills and critical thinking



AI is quickly becoming the catalyst for a revolution in workforce development

AI unlocks the potential to transform learning into a deeply personal journey – at a scale once thought impossible

Higher Ed. must boldly embrace AI as a catalyst to prepare the next generation for a dynamic, tech-driven future of work

accenture

Integrating AI in Law School Teaching: Practical Approaches

Dennis Kennedy

Director, MSU Center for Law, Technology & Innovation

MSU AI Summit

May 7, 2025

CENTER FOR LAW, TECHNOLOGY, & INNOVATION

Pioneering law's future with technology and innovation

AI in Legal Education Context

AI is transforming legal practice and legal system

Law students must develop AI literacy alongside legal expertise

Opportunity to enhance teaching while preparing practice-ready graduates

MSU already seen as a leader in AI legal education

AI and Law Courses at MSU College of Law

Two specialized courses focused on AI applications in law – one of them offered both in fall and spring due to demand

An advanced AI and Law Seminar (2.0) likely to be added next spring (as we speak)

Approach connecting legal concepts with technology

Focus on practical skill development and critical evaluation

Balance of AI literacy and fundamental legal reasoning

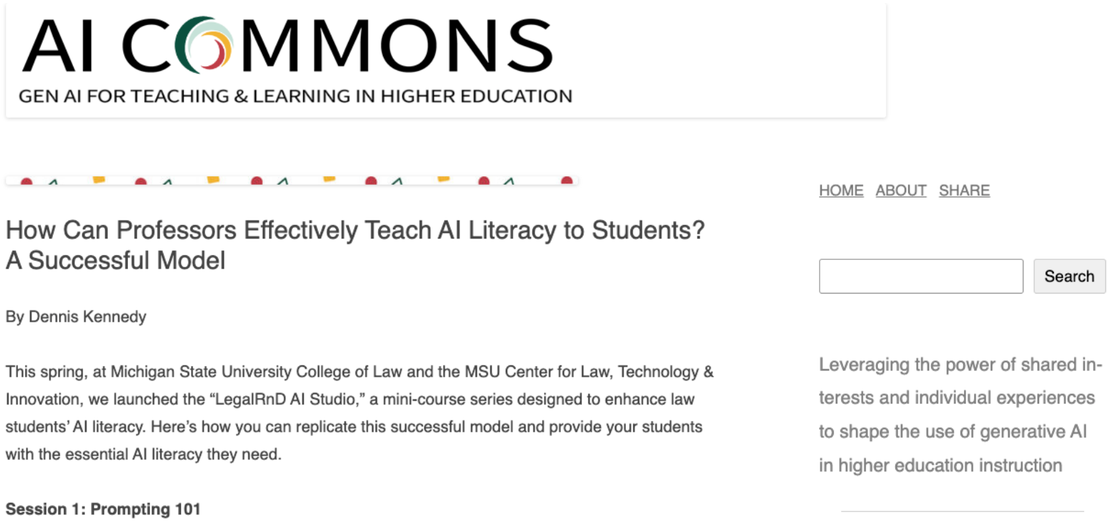
AI Studio Events

Open workshops to teach practical prompting skills

Hands-on exploration of AI tools in controlled environment

Focus on practical implementation and ethical considerations

Creates community of practice around responsible AI innovation



Teaching Methods - Scenario Planning Matrices

Explores implications across multiple stakeholder perspectives

Examines AI adoption through various ethical, legal, and social lenses

Facilitates nuanced classroom discussions beyond binary debates

	Effective & Accessible Justice System	Ineffective/Inaccessible Justice System
Restorative Justice	**"Algorithmic Reconciliation"**: A robust legal and social infrastructure supports the excoded. AI developers are held accountable, and remedies focus on restoring harm, repairing relationships, and preventing future bias. Emphasis is on dialogue, mediation, and community involvement.	**"Token Gestures"**: Legal systems are overwhelmed or indifferent to algorithmic harm. Redress, if available, is symbolic and inadequate, failing to address the underlying systemic issues. The excoded remain marginalized and frustrated.
Punitive Justice	**"Algorithmic Accountability"**: Strict laws and penalties are in place for AI-related harms. Developers and deployers face significant fines, legal action, and even criminal charges for discriminatory algorithms. The focus is on deterrence and punishment.	**"Impunity Algorithm"**: Legal loopholes and a lack of enforcement allow AI developers and deployers to escape accountability for the harm caused to the excoded. A culture of impunity prevails, and bias becomes further entrenched.

Teaching Methods - AI Prompting Projects

Students develop and refine law-related prompts

Observe variations in responses and analyze limitations

Iterative improvement process mirrors professional skill development

Builds critical AI literacy applicable across legal contexts

Personal AI Learning Assistant Prompting Projects

Case briefing assistant
Note-taking
Knowledge assessment
Legal research assistant
Multistate Professional Responsibility preparation
Event planner
Assignment reading comprehension assistant
Meal planning and prepping
Networking event preparation
Flash card maker
Multi-functional learning assistant with voice
Concept simplifier

- Subject matter assistant (from syllabus)
- Medical treatment assistant with questions for doctor
- Practice exam questions
- Time management and organization
- Readings summarizer
- Weekly reading and study scheduler
- Uniform Commercial Code clarifier
- Multiple choice question generator as study helper
- Fitness and nutrition assistant
- Multi-subject learning aid (cooking to elder law)
- Bar exam preparation time management tool

Capstone Prompting Projects

- Lease Analyzer Tool
- Athlete Contract Negotiations
- Medical Expert Identification
- AI as Crime Consultant
- Health Tracking App
- Custom Running Plans
- Clarifying Contract Clauses with AI
- Bar Exam Study Program
- HR Document Generation
- AI in Contract Negotiations
- Landlord-tenant analyzer
- Protecting Celebrities from Deep Fakes
- Constituent Communications
- Digital Censorship and Shadowbanning
- Generating Michigan Real Property Deeds
- Patent Application Assistant
- Law School Case Briefing
- AI Regulation in Healthcare
- Copyright Law and AI Analyzer
- Bar Exam Study Planning

Final Paper Projects

- Aligning AI and Public Trust
- AI-assisted Contract Negotiations for Unrepresented Athletes
- AI Adoption in Small Legal Practices
- AI Use in Committing Crimes
- AI Companions and Section 230
- Liability for AI-caused Harm
- Growing Use of AI in Contract Review
- AI Due Diligence Assistance in M&A Deals
- AI Firings in Federal Employment
- AI in Contract Negotiations and Corporate Governance
- Combating Deepfakes with the Right of Publicity
- Balancing AI Innovation and Democratic Safeguards with Legislation
- AI and Content Moderation and Speech Suppression
- Deepfakes in Deed Fraud
- AI Agent Integration into Patent Docketing Workflows
- Synthetic Identity and Digital Personhood
- AI Regulation in Healthcare
- Right to Exclude from Training Data for Creators
- Legal Analysis of Automated Hiring Systems

Final Thoughts

1. **MSU has the potential to become a leader in AI education** across disciplines by leveraging our strengths and interdisciplinary approach
2. **AI integration in education requires intentional design**
3. **Students are already creating innovative AI applications** that demonstrate the potential for enhanced learning outcomes
4. **Cross-departmental collaboration is urgently needed** to develop coherent, informed AI policies rather than siloed approaches
5. **Restricting AI without clear educational purpose sends negative signals** to students about innovation and fails to prepare them for professional realities
6. **Practical teaching methods** like scenario planning matrices and prompting projects effectively build critical AI literacy
7. **Equitable access to AI tools and training** must be addressed at an institutional level to prevent widening educational disparities
8. **Faculty development is essential** as many restrictions stem from unfamiliarity rather than pedagogical purpose
9. **MSU would benefit from establishing a standard AI toolbox and resources** to create consistency across departments
10. **MSULaw AI Studio events demonstrate the value** of bringing together diverse stakeholders for hands-on exploration and community building

Dennis Kennedy

Director, MSU Center for Law, Technology & Innovation

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https://www.linkedin/in/dennismkennedy

CENTER FOR LAW, TECHNOLOGY, & INNOVATION

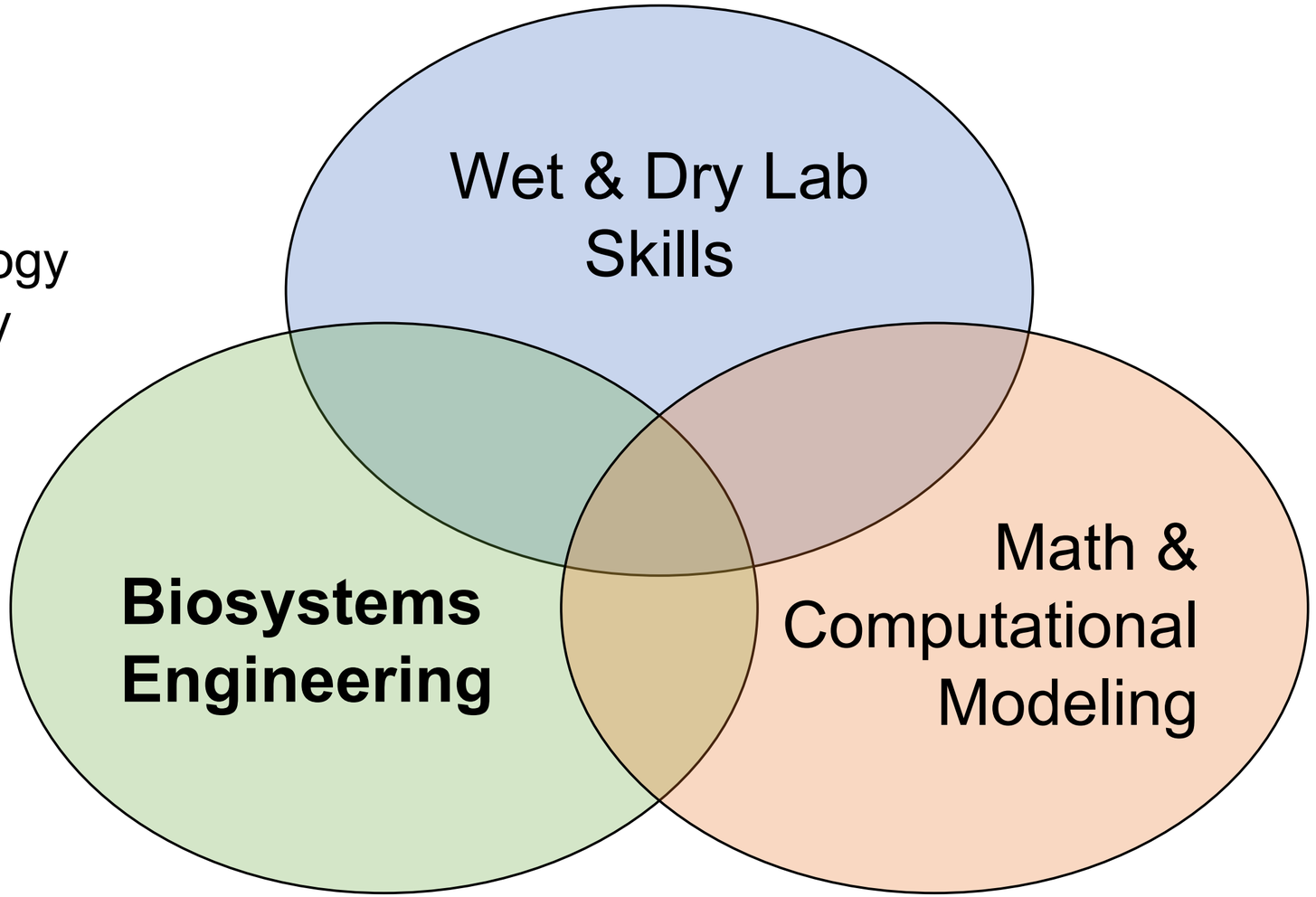
Pioneering law's future with technology and innovation

AI Summit Research and Learning Panel

Jiyoon Yi, PhD
Assist. Prof., Biosystems & Ag Engineering, MSU
May 7th, 2025

My Interdisciplinary AI Journey

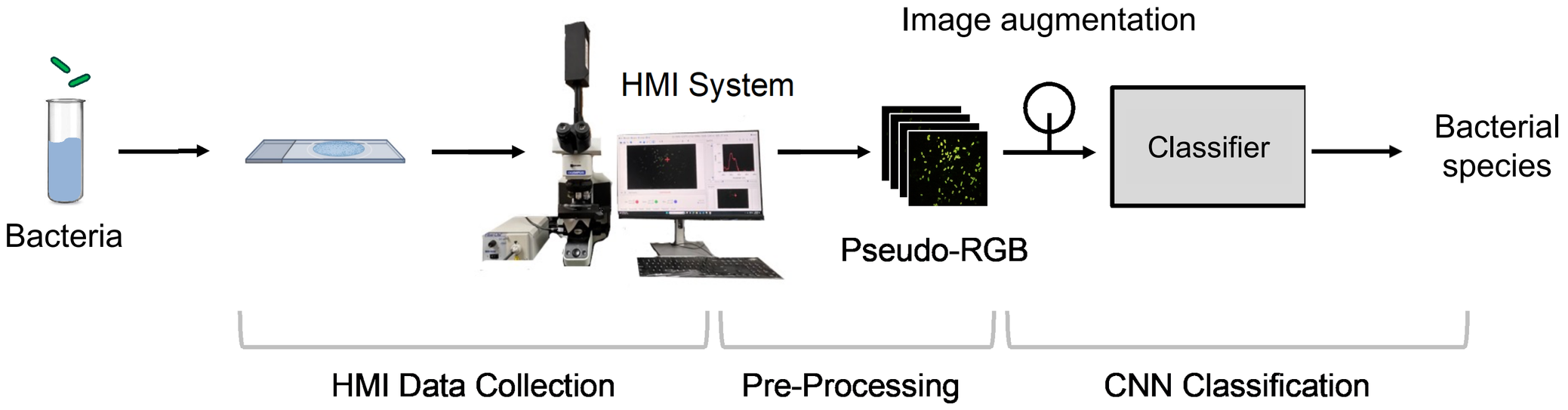
- Microbiology
- Chemistry
- Physics



- ODE/PDE
- AI/ML

AI-Enabled Research Success

- **[Imagery Data + AI]** Noninvasive Rapid Pathogen Classification



HMI: Hyperspectral microscope imaging

Teaching with AI

Heat/Mass Transfer in Biosystems (undergrad, core)

- Analytical solutions
- Problem-solving

$$\frac{k}{\rho c_p}\left[\frac{\partial^2 T}{\partial x^2}+\frac{\partial^2 T}{\partial y^2}+\frac{\partial^2 T}{\partial z^2}\right]+\frac{Q}{\rho c_p}=\frac{\partial T}{\partial t}$$

Machine Learning for Biosystems Engineering (grad/undergrad)

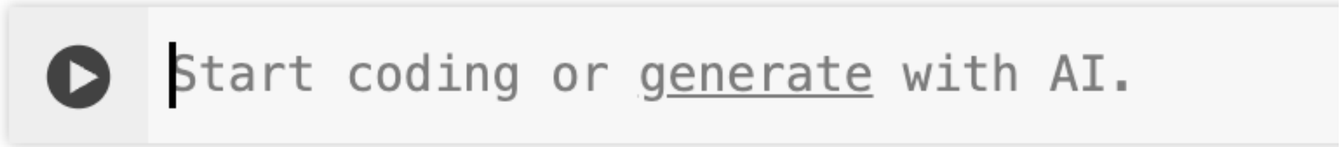
Google Colab
Allowed AI (with proof)

2.1.1. MLP Regressor (Recap)

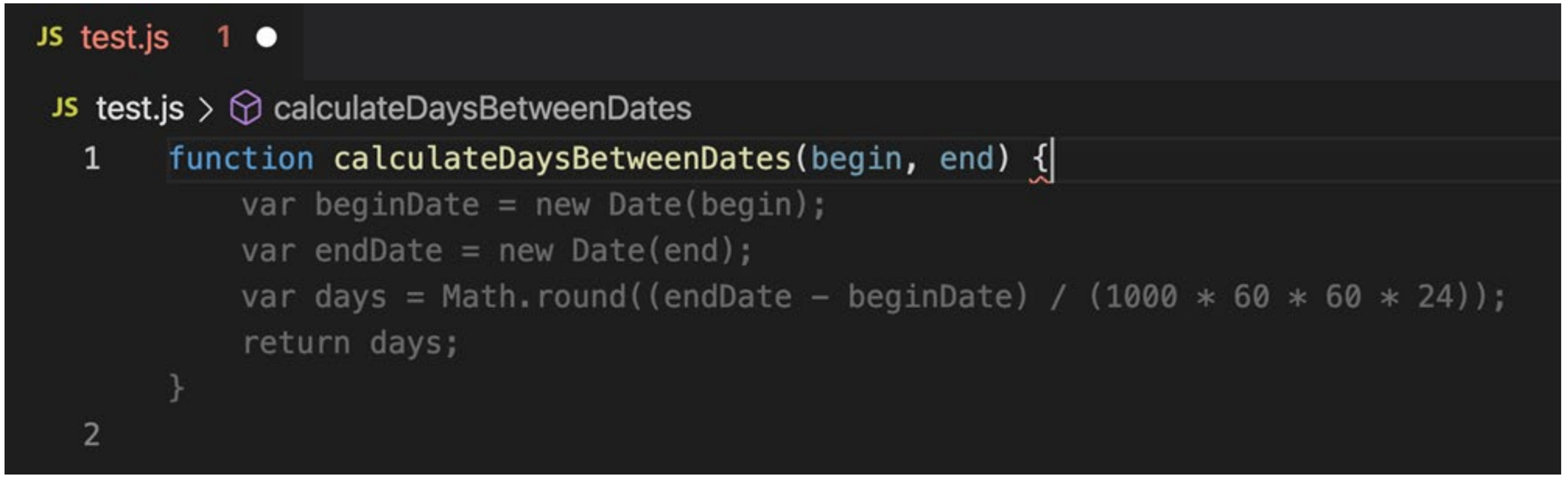
```
# Define an MLP regressor model with two hidden layers
class MLP2(torch.nn.Module):

  def __init__(self, input_size, output_size):
    super(MLP2, self).__init__()
    self.linear_layer_1 = torch.nn.Linear(in_features=
    self.linear_layer_2 = torch.nn.Linear(in_features=
    self.output_layer = torch.nn.Linear(in_features=16
    self.relu = torch.nn.ReLU()
```

Building Skills and Ethics with AI

Colab



VS Code
w/ copilot



Building Skills

Colab

VS Code
w/ copilot

Thank you!

Jiyoon Yi, PhD
Assist. Prof., Biosystems & Ag Engineering, MSU
May 7th, 2025

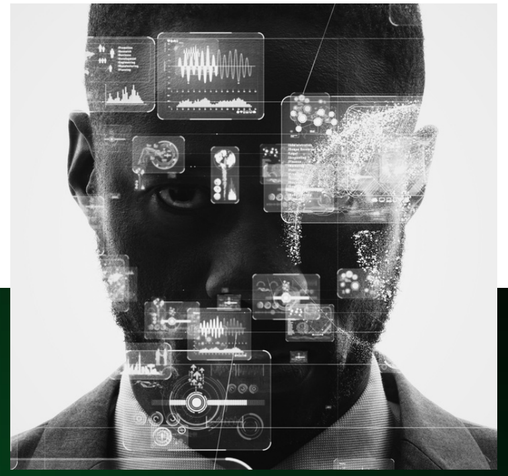
Feedback

If you are unable to join us for the afternoon working groups, please provide your feedback here:

https://tinyurl.com/MSUAISUmmit

Or through the QR Code

Working Groups



Society & Workforce Readiness

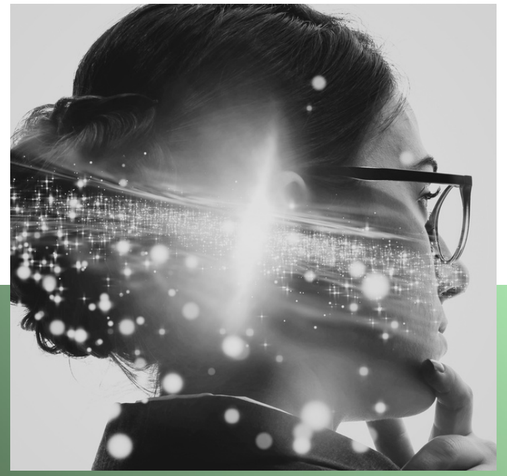
Facilitator:
Danielle DeVoss
Location: 3201

Advancing AI Research

Facilitator:
John Verboncoeur
Location: 3202

Teaching & Learning

Facilitator:
Sonja Fritzsche
Location: 2202



University Operations

Facilitator:
Sarah Gretter
Location: 2201

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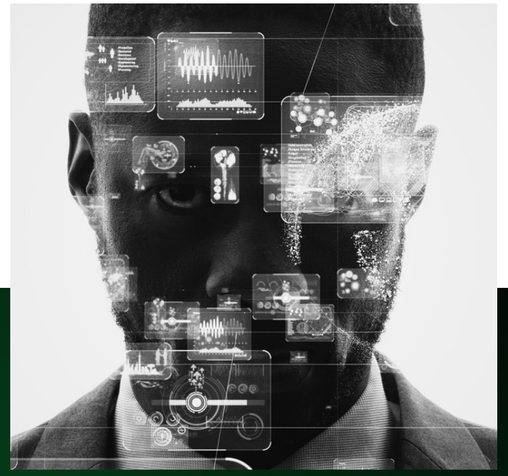
Report Out

- Boldest questions
- Invest energy



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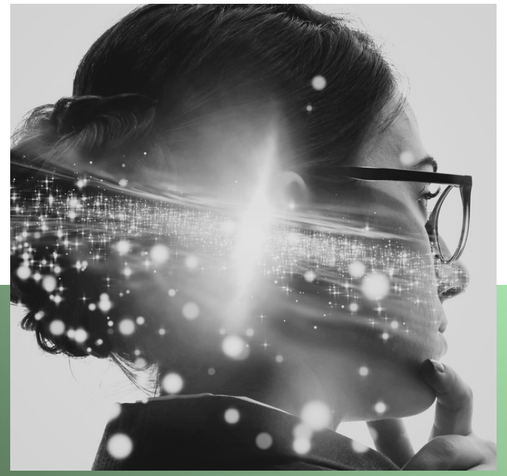

University Operations

Facilitator:
Sarah Gretter

What were your boldest questions?
Where should MSU invest its energy?

Closing Remarks

Feedback

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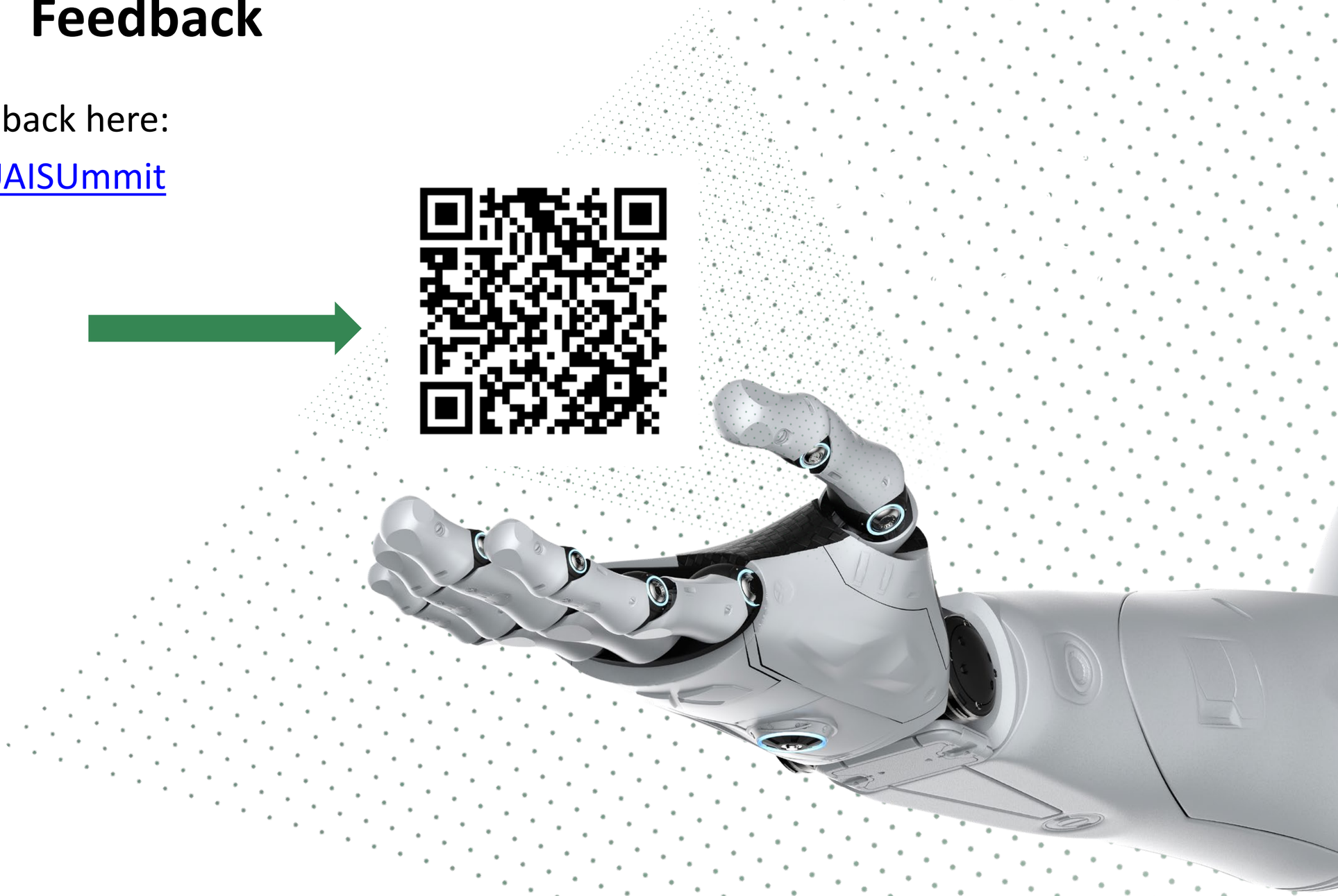

MICHIGAN STATE UNIVERSITY

Extra Slides

- Write your agenda point
- Write your agenda point
- Write your agenda point
- Write your agenda point
- Write your agenda point

AGENDA

1. What is Artificial Intelligence?
2. Types of Artificial Intelligence
3. Examples of AI Applications
4. How a Machine Learns
5. Artificial Networks
6. Ethics in Artificial Intelligence
7. Exciting Future of Artificial Intelligence
8. Conclusions

What is Artificial Intelligence?

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Types of Artificial Intelligence

Examples of AI Applications

Health

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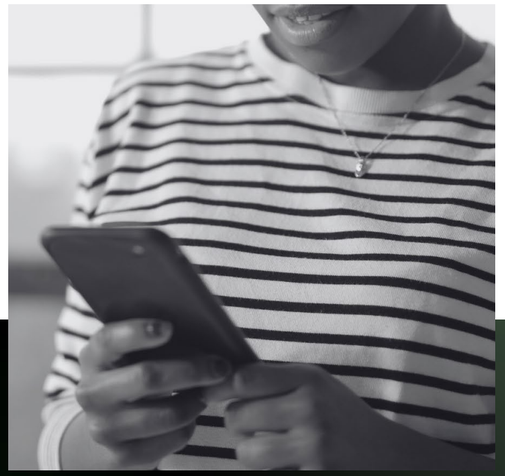

Communication

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Education

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E-commerce

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Artificial Neural Networks

HOW THEY WORK?

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Types of Artificial Intelligence

MICHIGAN STATE UNIVERSITY

Welcome

- Write your agenda point
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