To: Presidents and Chief Academic Officers
From: Office of the Secretary of Higher Education
Date: April 17, 2024
Subject: Reminder by May 3, 2024: Inventory for Artificial Intelligence at NJ Institutions of Higher Education

The New Jersey Office of the Secretary of Higher Education (OSHE) is conducting an inventory to better understand how higher education institutions are moving forward with the use of and/or developing programs in artificial intelligence (AI), particularly in academic programming, research, and employer partnerships. The information will be used by the State to help inform the work of the AI Task Force, as established by Governor Murphy's Executive Order 346.

The inventory was emailed to institution presidents and chief academic officers on Wednesday, April 10, 2024 with the subject "Artificial Intelligence Inventory for Office of the Secretary of Higher Education." We ask each institution to *submit only one response* using the unique survey link provided in the email. The inventory should take approximately 30 minutes to complete and will remain open through **May 3, 2024**.

A PDF preview of the inventory was provided within the original email with the survey link and is attached to this broadcast. Please only submit responses via the online link provided. The results of this inventory will help inform and support efforts across the State to encourage innovation and economic growth in AI.

If you have any questions about the inventory, please contact Chad May, OSHE Director of Research and Analysis (Chad.May@oshe.nj.gov).

INVENTORY FOR ARTIFICIAL INTELLIGENCE AT NJ INSTITUTIONS

Start of Block: Default Question Block

Q1
Inventory for Artificial Intelligence for ${e://Field/Institution}
 The New Jersey Office of the Secretary of Higher Education (OSHE) is conducting an inventory to better understand how higher education institutions are moving forward with the use of and/or developing programs in artificial intelligence, particularly in academic programming, research, and employer partnerships. The results of this inventory will help inform and support efforts across the State to encourage innovation and economic growth. This inventory will take approximately 30 minutes to complete and will remain open through May 3, 2024. We ask each institution to submit only one response. A PDF preview of the inventory has been provided, but all submissions should be via the online link.

 If you have any questions about the inventory, please contact Chad May, OSHE Director of Research and Analysis, at [chad.may@oshe.nj.gov]. Thank you for your help in completing this inventory.

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Q2 Please provide the contact information for individual completing the inventory for ${e://Field/Institution}, in case there are any follow-up questions.

    ○ Name (first and last) (1) _____

    ○ Title (2) _____

    ○ Email Address (3) _____

Q3 **ACADEMIC PROGRAM SECTION**

This section of the inventory will ask about academic programs by degree level related to artificial intelligence that your institution plans to move through its approval processes and up to the Academic Issues Committee of the New Jersey President's Council in one or more of the eight directly or indirectly related Classification of Instructional Programs codes (CIP Codes). The first question asks you to report at each degree level if you currently have an academic program that focuses, concentrates, or emphasizes using, developing, or enhancing Artificial Intelligence tools.

Q4 Please select the appropriate areas of the matrix below for any academic program that is currently offered, has been recently approved, or your institution anticipates developing and bringing forward for institutional approval within the next two years, followed by, if applicable, subsequent review by the NJPC Academic Issues Committee. Please indicate all planned programs with the following CIP codes: 11.0102, 11.0104, 11.0105, 11.0804, 14.4201, 16.0102, 30.3101, and 30.4801, while also adding any programs that you consider related to Artificial Intelligence, but you have the major program under a different CIP code. Please fill in the entire matrix below. If the degree level doesn't apply to your institution, choose option 6 for the entire column.

Options-   1- Currently Offered
              2- Program proposal approved institutionally and moving to AIC/NJPC
              3- Program proposal complete and working through institutional approval process
              4- Program currently in development
              5- Program in idea/consideration stage
              6- No programs planning at this time

	Minor/Concentration/Track	Certificate (below two-years)	Associate Degree
11.0102-Artificial Intelligence.	▾	▾	▾
11.0104- Informatics.	▾	▾	▾
11.0105- Human-Centered Technology Design.	▾	▾	▾
11.0804- Modeling, Virtual Environments and Simulation.	▾	▾	▾
14.4201-Mechatronics, Robotics, and Automation Engineering.	▾	▾	▾
16.0102-Linguistics.	▾	▾	▾
30.3101-Human Computer Interaction.	▾	▾	▾
30.4801- Linguistics and Computer Science.	▾	▾	▾
Other CIP Code 1 (Please write-in)	▾	▾	▾
Other CIP Code 2 (Please write-in)	▾	▾	▾
Other CIP Code 3 (Please write-in)	▾	▾	▾
Other CIP Code 4 (Please write-in)	▾	▾	▾

Bachelors Degree	Postbachelor's Certificate	Masters	Post Masters Certificate
▾	▾	▾	
▾	▾	▾	
▾	▾	▾	
▾	▾	▾	
▾	▾	▾	
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▾	▾	▾	
▾	▾	▾	
▾	▾	▾	
▾	▾	▾	
▾	▾	▾	

Q5 Please summarize the non-degree or non-certificate (not for college-level credit) activities/organized instructional offerings (such as IT boot camps, AI workshops, etc.) that your institution currently offers on AI tools and their use. These could be directed for adult/career professional development/continuing education offerings but do not lead to a formal/specific/traditional award offered by your institution. However, please include "newer" awards such as micro-credentials, badges, etc. Please explain in enough detail to give a reader a complete sense of your institution's non-credit activities related to artificial intelligence. Reply none or not applicable if your institution doesn't have not for college level credit activity.

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Q6 **RESEARCH SECTION**

This section will ask questions related to research directly or indirectly associated with Artificial Intelligence that is happening currently or is planned by your institution through faculty scholarship and research activity, which may include, but is not limited to, external grants and funding sources.

Q7 Does your institution currently have any research underway in direct partnership collaboration with an AI company?

     ◯ No (1)

     ◯ Yes (please specify the AI company below) (2)

     _____

Q10 In Fiscal Year 2023 did you have any Research and Development activity related to Artificial Intelligence? Use the definitions below from the NSF Higher Education Research and Development Survey.

 R&D activity is creative and systematic work undertaken in order to increase the stock of knowledge — including knowledge of humankind, culture, and society — and to devise new applications of available knowledge. R&D covers three activities defined below — basic research, applied research, and experimental development.
 • Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
 • Applied research is original investigation undertaken in order to acquire new knowledge. It is directed primarily towards a specific, practical aim or objective.
 • Experimental development is systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.

 R&D Expenditures Include all expenditures for R&D activities from your institution's current operating funds that are separately accounted for. For purposes of this survey, R&D includes expenditures for organized research as defined by 2 CFR Part 200 Appendix III and expenditures from funds designated for research.

○ No (1)

○ Yes (2)

Q8 Given the above definition of R&D activity, please provide the amount of expenditures on R&D activity related to "Artificial Intelligence" by source of funds below. Use similar definitions to the NSF HIGHER EDUCATION RESEARCH AND DEVELOPMENT SURVEY FY 2023. Report expenditures for Fiscal Year 2023.
U.S. federal government : _____ (1)
State and local government : _____ (2)
Business : _____ (3)
Nonprofit organizations : _____ (4)
Institutional funds : _____ (5)
All other sources : _____ (6)
Total : _____

Q9 Does your institution faculty or other professional have under review or been approved for any patents related to Artificial Intelligence?

○ No (1)

○ Yes (please explain) (2) _____

Q11 To what extent Is your institution currently considering developing an in-house version of CHATGPT or other institution developed AI tool/app? This could be a variety of off shoots but something similar to U-M GPT, a homebuilt generative AI tool at the University of Michigan. Other examples can be found here.

○ Definitely yes (1)

○ Probably yes (2)

○ Might or might not (3)

○ Probably not (4)

○ Definitely not (5)

Q12 What opportunities can OSHE and/or the State of New Jersey assist with research and development opportunities in Artificial Intelligence, such as (employer/institution connections, regional collaborations, etc.)? Please describe below.

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_____

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_____

Q13 **PARTNERSHIP SECTION**

After reviewing the questions below, please answer to the best of your ability. Please note the questions in this section are about active educational research endeavors, NOT vendor/product contracts with AI companies. While we recognize members of the institution may have individual relationships with AI employers, we are seeking more general information about formal partnerships with AI employers/divisions.

Q14 Does your institution currently have any ongoing established AI focused partnerships (non-Vendor related) with any of the AI development companies? Select all that apply.

☐ IBM (Watson, etc.) (1)

☐ Amazon   (2)

☐ Apple   (3)

☐ DataRobot, Inc.   (4)

☐ Meta (5)

☐ Microsoft (co-pilot) (6)

☐ OpenAI (chatGPT) (7)

☐ Google (Gemini, Vertex AI, etc.) (8)

☐ Anthropic (Claude) (9)

☐ Salesforce (Einstein GPT, Tableau Pulse, etc.) (10)

☐ Other (if other, please list)   (11)

☐ No, we do not have any current partnerships.   (12)

Q15 If yes, how is your institution formally partnering with these AI companies? Select all that apply.

☐ Faculty research (1)

☐ Student research (2)

☐ Experiential learning (internships, co-ops) (3)

☐ Class design projects (4)

☐ Student/employer mentorship opportunities (5)

☐ Professional development events (6)

☐ Employer advisory councils (7)

☐ Other (if other, please describe) (8)

_____

Q16 If yes to partnerships, which majors/departments primarily work these AI partners?

_____

Q17 Does your institution currently provide designated resources and support for start-up businesses/entrepreneurs?

○ No (1)

○ Maybe, depends (2)

○ Yes (3)

Q18 Does your institution currently provide designated resources and support specific to artificial intelligence start-ups?

○ No (1)

○ Yes (2)

Q19 Does your institution currently have or is in the process of establishing a designated 'Artificial Intelligence' space (hub, center, office, etc)?

○ Not currently or any in the plans right now (1)

○ Yes, planning on developing/procuring such a space (please describe in the text box below) (2) _____

○ Yes have such a space currently (provide relevant details in the text box below) (3) _____

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Q20 **OTHER INSTITUTIONAL IMPACT OF Artificial Intelligence (AI)**

Q21 Does your institution currently have an institutional-level AI Task Force?

○ No (1)

○ Yes (2)

Q23 If yes, what are the charges/goals of this Task Force?

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Q24 Please list the primary contact for your institution's AI Task Force.

○ Name (1) _____

○ Title (2) _____

○ Email (3) _____

Q27 Please rate where you feel your institution currently falls on generative AI maturity scale.

○ Not Occurring (no plans or work underway to leverage AI) (1)

○ Reactive/Individual efforts (Work is underway but highly limited to specific individuals' efforts) (2)

○ Proactive (Institution has multiple groups working on different plans but not generally coordinated) (3)

○ Optimized (Institution has a strategic approach to leveraging AI to enhance its mission and operation) (4)

Display This Question:

If Q27 = Not Occurring (no plans or work underway to leverage AI)

Or Q27 = Reactive/Individual efforts (Work is underway but highly limited to specific individuals' efforts)

Q28 Rate the degree to which the following are reasons why your institution would not use Generative AI.

	Not at all (1)	Slightly (2)	Moderately (3)	High (4)	Much higher (5)
Absence of a clear AI organizational strategy (1)	○	○	○	○	○
Inadequate professional development or AI expertise (2)	○	○	○	○	○
Inadequate institutional policies or procedures governing AI use (3)	○	○	○	○	○
Ethical Implications or Concerns (4)	○	○	○	○	○
Technological challenges or integration difficulties (5)	○	○	○	○	○
Data Management issues (6)	○	○	○	○	○
Financial constraints or uncertain ROI expectations (7)	○	○	○	○	○
Perceived lack of immediate need for AI technologies (8)	○	○	○	○	○
Regulatory compliance challenges	○	○	○	○	○

(9)	○	○	○	○	○
Industry dynamics concerns such as vendor lock-in (10)	○	○	○	○	○
Lack of support (11)	○	○	○	○	○
Staff resistance or slow adaptation to new technologies (12)	○	○	○	○	○

Q29 Rate the degree to which the following are reasons why your institution would use Generative AI.

	Not at all (1)	Slightly (2)	Moderately (3)	High (4)	Much higher (5)
Enhancing the efficiency and effectiveness of current work (1)	○	○	○	○	○
Exploring new techniques, analyzing new data sources (2)	○	○	○	○	○
Improving service to students and stakeholders (3)	○	○	○	○	○
Automating manual work to save time (4)	○	○	○	○	○
Brainstorming approaches to leadership challenges (5)	○	○	○	○	○
Senior leadership support (6)	○	○	○	○	○
Success stories or case studies form institutions or sectors (7)	○	○	○	○	○
Recommendations from professional bodies or associations (8)	○	○	○	○	○
Visualizing or creating imagery to describe data and findings (9)	○	○	○	○	○
Ease of integration with existing systems (10)	○	○	○	○	○
Availability of training/professional development (11)	○	○	○	○	○

| Sufficient financial resources (12) | ○ | ○ | ○ | ○ | ○ |

Q25 Does your institution have a dedicated website for artificial intelligence at your IHE? If so, please provide the link(s) below.

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Q26 Please use the space below to highlight any other information regarding AI in relation to academic programs, research opportunities, partnerships, or institutional use of AI, that you think will be helpful to our understanding of AI use and development in higher education across the State of New Jersey.

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