



**INFORMATION AND
TECHNOLOGY SERVICES**

UNIVERSITY OF MICHIGAN

Building and Managing AI Services Within Universities

May 8, 2025

ITFMA 2025 Conference

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Topics for Today

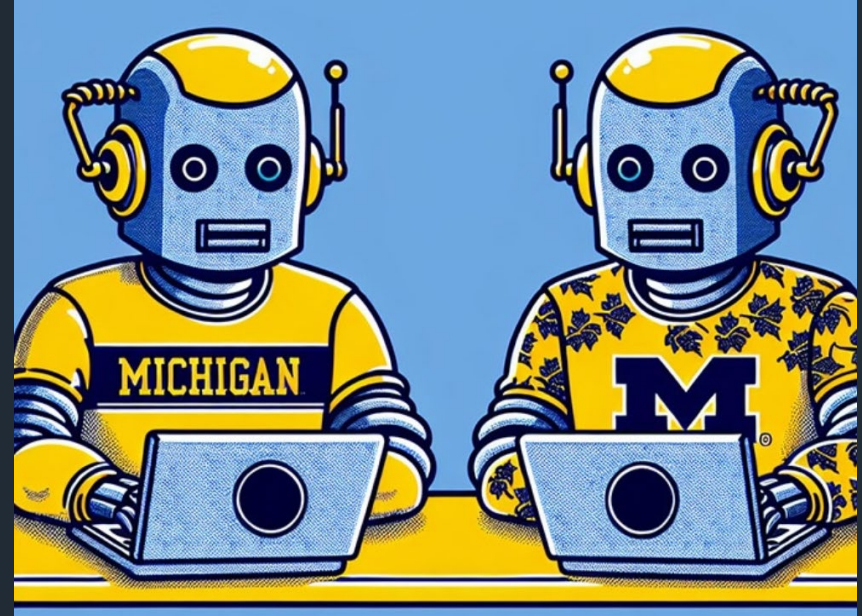


- What is AI
- U-M AI Services
- Department Start-Up Costs
- Determining the Best Funding Model
- How to Prepare for the Future



What is AI?

Artificial Intelligence (AI) is the ability of computers and machines to perform tasks that usually require human intelligence.



Definitions

Algorithm – set of rules computer uses to accomplish a task

Natural Language Processing (NLP) – focus on human/computer interactions

Generative Pre-trained Transformer (GPT) – language model

Machine Learning (ML) – allow computers to learn using algorithms

Prompt – an instruction you give to guide what AI generates



AI Tools

U-M AI Tools offering a generative AI platform

ChatGPT Open AI chatbot

U-M GPT ITS AI service to support faculty, staff, and students

How AI Used in the Classroom

How Educators are Bringing AI into the Classroom at the University of Michigan

U-M AI Services

Believed to be the first major university
to offer a custom AI platform for its
entire community.

Our tools include:



U-M GPT

- No-cost access to multiple large language models



Maizey

- Codeless platform that allows you to query and extract insights from your own data



U-M GPT
Toolkit

- Advanced API access to train and build AI models

U-M GPT is the most accessible ITS conversational AI tool that lets users easily engage with popular GenAI models such as ChatGPT.



Cost of U-M GPT

In 2023, U-M GPT initially provided at no-cost for most customers with a plan to charge monthly subscriptions for increased usage limits.

After June 30, 2025:

- Free for all users.

Specialty Model DALL-E

U-M GPT includes an image-generation model designed to generate images based on text descriptions.

After June 30, 2025:

- Free for all users with limit of ten images per hour.



U-M Maizey is an AI tool that allow users access to query their own data sets and connect to popular platforms like Google and Canvas.



Cost of U-M Maizey

In 2023 U-M Maizey initially provided at no-cost.

After June 30, 2025:

- Academic: Faculty provided a specific \$ allocation per term.
- Non-Academic: Based on amount indexed.
 - 10-12 word prompt/80-100 word reply = less than \$0.01
 - 75 word prompt/250-300 word reply = \$0.02
 - Max word prompt/45 page reply - \$0.88

U-M GPT Toolkit is the most advanced and flexible AI tool where users can tailor solutions using a platform to construct, train, and host AI models.



Cost of U-M GPT Toolkit

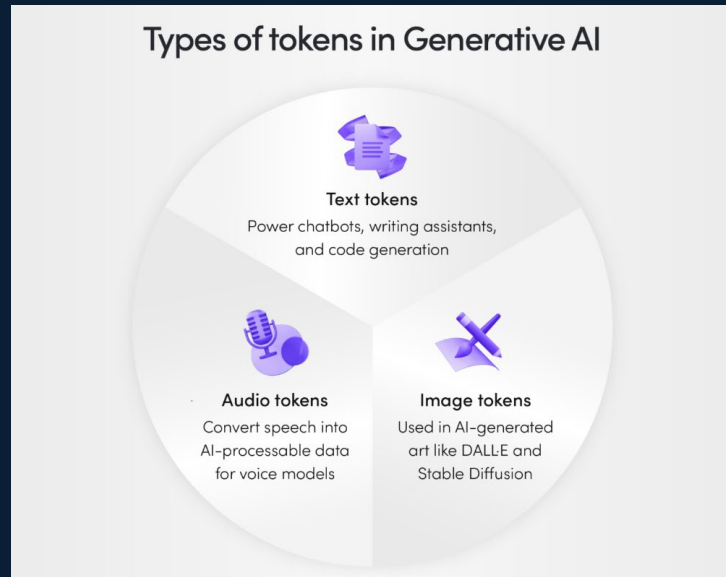
In 2023 U-M U-M GPT Toolkit initially offered via a fee structure.

No change after June 30, 2025:

- Models vary with required power/context.
 - Prompts range from \$0.165 to \$16.50 per 1M tokens
 - Replies range from \$0.66 to \$66.00 per 1M tokens

What is an AI Token?

AI tokens serve as inputs for algorithms, particularly in machine learning models. This is often part of a vendor's billing method.



Department Start-Up Costs

AI at a university involves significant costs across several areas, including salaries, infrastructure, and software/hardware.



Example Budget

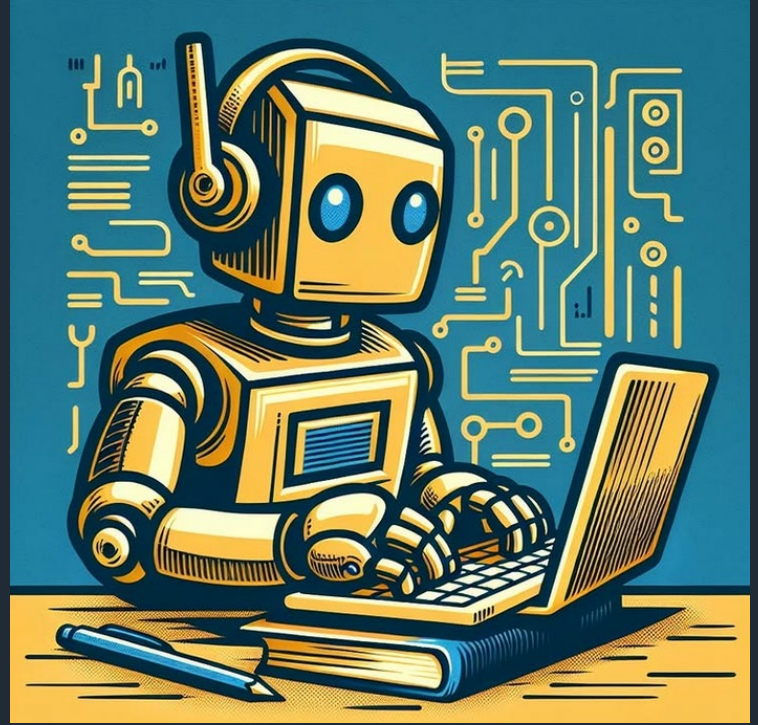
AI Start-Up Budget - Year 1 through Year 3

Emerging Technology and AI Services	Year 1	Year 2	Year 3
Subtotal Compensation & Benefits	792,550	1,279,373	1,714,182
Subtotal Other Expenses	1,584,700	2,140,430	2,452,914
Total Expenses	2,377,250	3,419,803	4,167,095
Total Transfers	0	0	0
Net Expense After Transfer	2,377,250	3,419,803	4,167,095



Determining the Best Funding Model

Consider your service market and target goals to align with resources and political climate.



Potential Billing Models to Campus Customers

General Fund Supported

Keeps the original cost of a good or service in the unit originally charged.

GENERAL FUND SUPPORTED			
Unit A		Unit B	
SaaS Service	<u>(\$1,000)</u>		<u>\$0</u>
Total Cost to Dept	(\$1,000)	Total Cost to Dept	\$0

Rebills

Moves the original cost of a good or service from the unit originally charged to another unit that utilized the same good or service.

REBILLS			
Unit A		Unit B	
SaaS Service	<u>(\$1,000)</u>		
Rebill Expense	<u>\$1,000</u>	Rebill Expense	<u>(\$1,000)</u>
Total Cost to Dept	\$0	Total Cost to Dept	(\$1,000)

Recharge Rates

Charges for goods or services provided by one internal university unit to another internal university unit.

RECHARGE RATES			
Unit A		Unit B	
SaaS Service	<u>(\$1,000)</u>		
Staffing	<u>(\$100)</u>		
Network Fee	<u>(\$75)</u>		
Server Charge	<u>(\$15)</u>		<u>\$0</u>
Expense Incurred	<u>(\$1,190)</u>	Expense Incurred	<u>\$0</u>
Revenue Billed	<u>\$1,190</u>	Recharge Rate	<u>(\$1,190)</u>
Total Cost to Dept	\$0	Total Cost to Dept	(\$1,190)



Potential Billing Models to Campus Customers

General Fund Supported

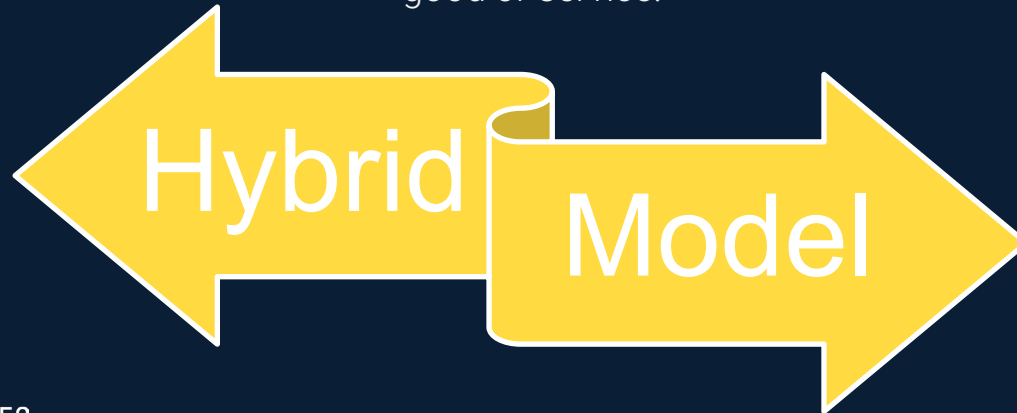
Keeps the original cost of a good or service in the unit originally charged.

Rebills

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Recharge Rates

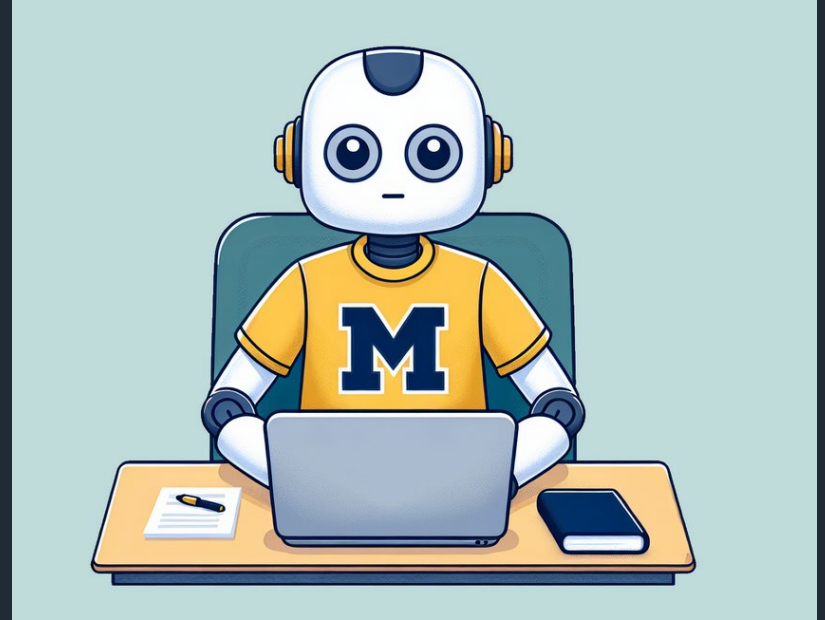
Charges for goods or services provided by one internal university unit to another internal university unit.



Uniqname	Last 5 of API key	Organization	model_response	Completion Cost	Prompt Cost	Count of umgpt	Prompt Tokens	Completion Tokens	Total Tokens	cost
Nelson	xx112	001145	gpt-35-turbo	0.000002	0.0000015	3,271	3,225,878	42,558	3,268,436	\$4.92
Nelson	xx112	008444	gpt-4o-2024-05-13	0.000015	0.000005	10,171	2,144,690	1,069,879	3,214,569	\$26.77
Nelson	xx112	016732	gpt-4	0.00003	0.00001	2	6,714	4,696	11,410	\$0.21
Nelson	xx112	103329	gpt-4	0.00003	0.00001	1,866	694,695	177,067	871,762	\$12.26
Nelson	xx112	103329	gpt-35-turbo	0.000002	0.0000015	701	232,308	75,196	307,504	\$0.50
Nelson	xx112	109258	gpt-35-turbo	0.000002	0.0000015	689,687	441,608,075	83,267,207	523,065,282	\$827.08
Nelson	xx112	109258	gpt-35-turbo-16k	0.000004	0.000003	77	34,158	1,561	35,719	\$0.11
Smith	xx112	129698	gpt-4o-2024-05-13	0.000015	0.000005	40	56,037	280	56,317	\$0.28
Smith	xx112	129698	gpt-35-turbo	0.000002	0.0000015	40	24,996	261	25,297	\$0.04
Smith	xx112	130008	gpt-4	0.00003	0.00001	2	46	410	456	\$0.01
Smith	xx112	130008	gpt-4o-2024-05-13	0.000015	0.000005	61	1,405	8,660	10,065	\$0.14
Smith	xx112	130008	ada	0.0000001	0.0000001	7	4,900		4,900	\$0.00
Smith	xx112	130008	gpt-4	0.00003	0.00001	4	84	31	115	\$0.00
Smith	xx112	130008	text-embedding-3-large	0.00000013	0.00000013	4	530		530	\$0.00
Smith	xx112	130008	gpt-35-turbo	0.000002	0.0000015	153	103,263	44,899	148,162	\$0.24
Jones	xx112	130008	gpt-4	0.00003	0.00001	26	8,447	1,449	9,896	\$0.13
Jones	xx112	130242	gpt-4	0.00003	0.00001	1	2,139	21	2,160	\$0.02
Jones	xx112	130242	gpt-4o-2024-05-13	0.000015	0.000005	4	14,550	168	14,718	\$0.08
Jones	xx112	130940	gpt-4	0.00003	0.00001	19	4,568	6,087	10,655	\$0.23
Jones	xx112	131883	gpt-4	0.00003	0.00001	580	124,525	56,698	181,223	\$2.95
Jones	xx112	131883	gpt-4o-2024-05-13	0.000015	0.000005	17,257	4,632,775	4,449,077	9,081,852	\$89.90
Anderson	xx112	189950	gpt-4	0.00003	0.00001	117	439,814	78,588	518,402	\$6.76
Anderson	xx112	192713	ada	0.0000001	0.0000001	52	772		772	\$0.00
Anderson	xx112	192713	gpt-35-turbo-16k	0.000004	0.000003	52	39,288	4,082	43,370	\$0.13
Anderson	xx112	194550	gpt-35-turbo	0.000002	0.0000015	9	13,762	3,537	17,299	\$0.03
Anderson	xx112	194550	gpt-4	0.00003	0.00001	2,663	2,004,857	368,737	2,373,594	\$31.11
Anderson	xx112	197817	gpt-35-turbo	0.000002	0.0000015	42	9,450	715	10,165	\$0.02
Anderson	xx112	204420	gpt-4o-2024-05-13	0.000015	0.000005	139	28,527	20,957	49,484	\$0.46
Anderson	xx112	204420	ada	0.0000001	0.0000001	391	37,454		37,454	\$0.00
Clark	xx112	227044	gpt-4	0.00003	0.00001	1	5,205	951	6,156	\$0.08
Clark	xx112	228777	gpt-4	0.00003	0.00001	53	44,188	10,698	54,886	\$0.76
Clark	xx112	233582	gpt-35-turbo-16k	0.000004	0.000003	1,180	248,216	83,228	331,444	\$1.08
Clark	xx112	272908	ada	0.0000001	0.0000001	9	7,658		7,658	\$0.00
Clark	xx112	272908	gpt-4	0.00003	0.00001	5	6,733	1,271	8,004	\$0.11
Clark	xx112	275317	gpt-4	0.00003	0.00001	1	4,322	179	4,501	\$0.05
Clark	xx112	337531	gpt-35-turbo	0.000002	0.0000015	2	5,271	55	5,326	\$0.01
Clark	xx112	337531	gpt-4	0.00003	0.00001	2,495	12,368,656	76,874	12,445,530	\$125.99

How to Prepare for the Future

AI will create new opportunities across
the entire spectrum of research and
academics.



Keep Finance Involved

It is important to keep finance staff engaged in exploring AI technologies.

- Tackle GenAI by taking training courses offered by your institution or through a learning site.
- Work closely with the service owners of the AI services.
- Work directly with the vendors to understand invoices.
- Keep an open mind on how to get to an end goal.
- Remain flexible but stay within policy standards.

ITS AI Services Roadmap

Currently Working On:	Next:
U-M GPT File Upload Upload and interact with your PDFs using AI.	More details coming soon! Check back for details about future enhancements.
Role-Based Experience Go Blue / MiMaizey now customizes your experience based on your role and campus location.	
Maizey Conversational Chat Engage with Maizey using natural chat. The AI remembers the conversation history and you can ask follow-up questions.	



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Questions?

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