

REPORT ON AI IN THE EMORY WORKPLACE

Summer 2023

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Summary

During the summer of 2023, we embarked on a project to explore the potential of AI tools in enhancing the operational excellence of the Office of the Provost. Our primary focus was on leveraging AI and automation in various workplace applications. Throughout our endeavor, we evaluated 53 different tools spanning across 13 distinct categories. To validate their effectiveness, we executed and analyzed 43 experiments across 5 carefully chosen use cases.

RESULTS

In our pursuit of AI transformation at Emory University, we've identified several key areas of importance. Our journey must be guided by a clear path, underpinned by training and support from leadership. The potential shift in job roles necessitates proactive talent management to align the transition. We've noticed that AI tools are often underutilized, serving only as task-specific functions rather than the powerful integrative tools they can be. We've recognized the urgency of deploying AI tools and acknowledge that employees will use them regardless of official guidelines. Our narrow window of opportunity calls for quick action and a departure from traditional lengthy technology approval processes. As we embrace these advancements, we must also be mindful of the associated security risks. Lastly, we foresee a critical need for improved access to integrations of work tools, breaking down internal silos for a more efficient, collaborative workflow.

RECOMMENDATIONS

Our recommendations for Fall 2023 center around three key areas.

- First, we see an immediate need for an Emory-wide solution in certain crucial domains to ensure the organization and security of our workflows.
- Second, we advocate for a robust collaboration with the Office of Information Technology (OIT) to prioritize security in the integration of AI tools with our enterprise applications, thus fortifying our cybersecurity defenses.
- Finally, we propose a comprehensive support system across Emory aimed at fostering innovation through AI and automation technologies. This would involve a consulting service, educational resources, and continuous collaboration with units to facilitate the seamless integration and adoption of AI technologies organization wide.



Introduction

Generative AI, particularly in the form of ChatGPT, has become a dominant force in the workplace. This revolution has a greater impact on white-collar jobs and skills compared to blue-collar ones. Near-term, entry- to mid-level professionals face the highest risk of displacement by AI. Repetitive tasks are particularly vulnerable to automation. Estimates suggest that by 2030, nearly 12 million Americans in occupations with decreasing demand may need to switch jobs. Automation, driven by generative AI technologies like ChatGPT, could potentially automate up to 30% of hours currently worked in the US. According to the OECD, 27% of jobs that heavily rely on skills easily automated by AI are at high risk. The potential impact of large language models (LLMs) like ChatGPT-4 is significant, with the ability to affect up to 40% of working hours, considering that language tasks account for 62% of total work time.

It's essential to acknowledge the rapid changes in this field. Technology is advancing at a faster pace than the users and IT. Organizations may need dedicated efforts and individuals to keep track of these developments. However, standing still or progressing slowly is not a viable option. Other organizations will continue to improve, and expectations will rise. Many organizations face existential risks if they are unable to adapt quickly and effectively. Immediate and active leadership dialogues about preparedness and deployment are necessary. To match the speed of change in the marketplace, numerous organizations are seeking external assistance to enhance their AI capabilities.

Although early research initially focused on job displacement due to efficiency gains, our early experiments suggest that easily adopted AI applications offer other forms of return on investment. These include adding value to work culture, solving problems that benefit society, supporting diversity, equity, and inclusion (DEI), creating cross-cultural intelligence, and improving healthcare and drug development. Emphasizing quality improvement and efficiency stories, rather than solely focusing on job displacement, can foster a positive embrace of AI advancements.

What we did

Our work primarily revolved around generative AI, automation, and digital technologies. We recognized the importance of these areas not only for our staff but also for the faculty and students. By reviewing case studies and studying industry analyst content, we gained valuable insights into key trends in AI. We took the initiative to educate various departments about the possibilities of AI in the near term, conducting learning sessions across the Office of the Provost and sharing our research findings. Our focus was on identifying the "best" tools to enhance efficiency, expand capabilities, and improve the quality of our team's outputs. Additionally, we aimed to foster better team and student interactions, providing support to departments throughout Emory University in running their own experiments. We also played a consultative role, collaborating with different groups on behalf of the business users/owners. Looking ahead, we assessed how learning and training could be implemented at a larger scale through the Center for AI Learning.

Throughout our work, we prioritized the need for greater efficiency in our current operations. We recognized that by leveraging the right tools and technologies, we could optimize our processes and achieve better outcomes. We also focused on expanding the capabilities of our current team, ensuring they had the resources and knowledge needed to excel in their roles. Moreover, our efforts were directed towards enhancing the quality of our outputs, ensuring that we consistently delivered high-quality work to meet the needs of our stakeholders. By striving for excellence in these areas, we aimed to drive positive impact and enable Emory University to be at the forefront of AI-driven innovation.

In order to achieve our goals, we provided extensive support to departments across Emory University. We collaborated closely with them, understanding their unique requirements and assisting them in running their own experiments. Our expertise and guidance were instrumental in helping them leverage AI technologies effectively. Additionally, we consulted with different groups to better understand the needs of the business users and owners, providing valuable insights and recommendations. As we progressed, we also laid the groundwork for future initiatives. We assessed how learning and training could be implemented on a larger scale, envisioning the establishment of the Center for AI Learning. Through this center, we aimed to democratize AI education and empower individuals and teams to harness the full potential of AI in their respective domains.

FUNCTIONALITIES/TOOLS LOOKED AT

Category	Tools
Writing	ChatGPT, Jasper, Claude, Bard, Copy.ai, Flowrite, ID-Assist, Lavender, Missive, Kajabi
Presentations	Presentations.ai, Beautiful.ai, SlidesAI, Tome, Decktopus
Chatbots	Cody, ChatThing, Kili, Botpress
Meeting notes + tools	Fireflies, Meetgeek, Otter, Krisp (background noise cancellation), Fathom
Video	Synthesia, Pictory, Descript, Vyond Go, Speakatoo (voiceover), Runway
Job aids	Tango, ScribeHow, Trainual, Flowshare
Automation	Zapier, Make, Bardeen, PowerAutomate, monday.com, AutoGPT, SaneBox
Imagery	Midjourney, DALL-E, Leonardo, Remini, remove.bg, Kreado AI, Adobe Express/Firefly
Data	Data interpreter (OpenAI)
Summarization	Upword
Parsing	Parsio.io
Project management	Monday.com AI, The Gist
Studying	Wisdolia
Sales	Seamless.AI

EXPERIMENTS DONE

ECE

Category	Experiment Name	Description	Results
Chatbot	ECE Website Chatbot	Using Cody AI, trained a chatbot to answer questions related to the Open Enrollment and Corporate Learning programs, as well as any general information on the ECE website	Ongoing: So far there has been limited usage, which is normal as we don't get tons of chats on the ECE website. Most answers have been accurate when sufficient details are provided. When an answer given is inaccurate or incomplete, we are able to create a Word doc with the info needed and upload to expand the chatbots knowledge base and "plug the hole". Learnings include: The general public is not used to interacting with AI yet. For example, most people include very little detail for the chatbot to go on. When someone types in something vague like

			“requirements”, the chatbot will take a couple guesses at programs, providing those details, and then state that if more specific information is provided then it can give a better answer. Despite being prompted to be more specific, most people abandon the chat at this point. Staff have tested further probing, and the bot will eventually get to the right answer if sufficient detail is provided. • People generally assume the chatbot can tell what page of our website they are on. The Cody chatbot does not have that capability, hence why it is necessary for users to state the program there question relates to. We will continue looking for options that do have the capability of seeing what page of the website a person is on and taking that context for use in generating an answer. • AI is great for people who just want to yell at someone. AI is always polite and never passive aggressive in its responses and did even offer useful suggestions.
Chatbot	Graphic Design Tutorbot	Using Cody AI, we uploaded the three required textbooks for this program, which include the Adobe Classroom in a Book texts for Photoshop, Illustrator, and InDesign. No other training of the bot was needed to create its knowledge base and provide excellent results to questions asked.	Ongoing: For a textbook based course or program, creating a tutorbot is simple and provided very accurate results with no “plugging holes” needed. The only challenge was that the PDF e-book files were protected in a way that the bot could not initially read them. We tried OCR which didn’t work, and then tried exporting to Word and that worked in this case. This could be a barrier for files with more sophisticated protections. All students purchased these textbooks, so we are not violating IP laws by sharing content with anyone who hasn’t paid for it. Learnings include: • Students were initially hesitant to use the tutorbot despite our encouragement. • We debated whether to keep the tutorbot active while their first quiz was available, but decided it was worth the risk of the quiz being too easy to gather more usage and data. Most students ended up only using the tutorbot to look up the questions they got wrong after they completed the quiz. • The tutorbot provided detailed and accurate responses (more reliable than web chatbot), and in some cases, despite no one telling it what the multiple choice options were, it came back with an answer choice verbatim. In



			other cases, an inference was needed to select the correct answer choice. • The tutorbot not only told students what the answer was, but also provided a summarized paragraph of WHY that was the answer. This seems ideal for learning and retention. • We see potential in using the tutorbot internally to vet and validate test questions. The textbook based tutorbot is so reliable that if it doesn't come up with a response where the correct answer can be inferred, then there is likely an issue with the question phrasing such as ambiguity or inconsistency in terminology used in the question vs. the textbook.
Presentations	Presentation Generation	Experimented with beautiful.ai and Decktopus	One drawback from both tools we tested was that they don't allow you to upload your own template at this time (at least not in free versions). Learnings specific to each platform: Beautiful.ai - this tool focuses on aesthetics and does produce nice looking presentations. Users can select from many template options and as content is added to slides, it will automatically adapt the slides to best fit the content. Decktopus - very user friendly, but focuses more on content generation than aesthetics. Users start by entering the title of the presentation they want to create, then are guided through identifying: • Audience - auto generated options are provided, but users may also use an open text field to define this • What the goal for the deck - again auto generated options are provided or the user can type their own • Length of presentation - free version includes options for 10, 25, or 40 mins • Template - free version gives four choices with a small preview provided From there users simply hit "generate presentation" and within a couple minutes a presentation is generated. Users can then edit the presentation (including adding new slides) within the Decktopus site. Main drawbacks were that design is not the focus, so the presentations generated are mainly boring text. There is also not the ability to tell the software a webpage to pull the content from, so it will make up details that may not be relevant to the users intended subject.

			For instance, when we used it to create a presentation for a webinar to promote one of our programs to prospective students, it made up the curriculum details and mostly just included vague statements related to instructors and schedule. Custom brand fonts only available in most expensive business version.
Employee Training Tools	Job Aid Generation	Experimented with ScribeHow, Trainual, and FlowShare	We tested the free trials/plans of these three tools. All tools effectively watch the user while completing a task and then auto generate instructions that include the steps and where to click. Each had unique pros and cons, listed below. ScribeHow: • Basic plan is free • Offers a Chrome extension • Most user friendly • Create a PDF of share link from the same screen • Con - basic plan only works on web pages • Con - the circle they auto-generate to highlight where to click was often very inaccurate and could not be moved manually Trainual: • Includes branding in their cheapest plan • Offers a Chrome extension • Con - not intuitive - even our very tech savvy tester had to watch a lengthy training video to figure it out • Con - no easy way to generate a well formatted PDF FlowShare: • Export PDF and other formats • Blur sensitive data across the document • Con - exclusively for Windows • Con - requires large download and installation • Con - styling a bit clunky Overall, the thought of these tools is incredibly useful, but the current options we tried all have some flaws in practice. We plan to try ScribeHow with the paid Pro version to see if that removes the issue with the circles that highlight where to click ending up in random places. If the paid version avoids this flaw, it will be a very useful tool for documenting processes and creating training aids.

Sales	Improving Lead Generation with AI	Tested Lavender AI and seamless.ai to improve sales outcomes	Seamless.ai - pulls in companies to contact based on a desired client profile. It also seeks out employees based on title, roles, etc. Mines LinkedIn and similar platforms. ECE salesperson has been using it to prospect companies, tracking their growth and what they've been doing in the news and reaching out to share aligned courses that we offer. For instance, if company is expanding, he'll reach out and share that we have many classes on leadership and management and a class such as Leading Through Change could be useful as they navigate their current growth. Seamless.ai notices changes in leadership for certain positions so he can then reach out and introduce himself. Lavender - this is a tool to help optimize cold email copy and increase the chances of a response. The tool reviews an email and scores it based on factors like subject and body length, mobile friendliness, overly technical jargon, etc. It also includes a personalization tool that pulls in details available for a person or company to allow the user to make their emails less generic. The tool offers specific suggestions for the issues it flags as well. We have had limited staff testing with this product but our sales team has not tested it yet to measure whether it does increase response rate.
Video	Video creation and editing	Used chatGPT to generate a short script, uploaded the script to Synthesia to create a video, and then uploaded the video to Descript for editing. Additional testing done with Vyond Go and Speakatoo	Synthesia - while we used ChatGPT to generate our script in our experiment, Synthesia can do this piece too with a topic and audience prompt. Once a script is created, it can be edited first within Synthesia, and then user can select a background, avatar and AI voice and then generate their video. It works decently and could be a useful tool in creating training videos, but it is obvious that the avatar and voice are AI. Descript - very interesting video editing tool that can automatically edit out all the uhs and ums. It transcribes what is said in the video and editing is as simple as editing the text. It can replicate the subject's voice to correct words as well - for instance if someone said "faculty" but we wanted to

			make it “instructors”, Descript can make that adjustment and it was quite realistic in our testing. Vyond Go - AI powered script and animated video creator that allows users to go from prompt to video in seconds and also allows for editing. In our test we gave it the prompt “tips for managing remote teams” and it came back with bullet points followed by explanations of the key issues for this topic. Vyond Go then allows the user to select a setting for the animated video and then generates the video. What were effectively bullet points are then covered in a conversational setting with animated characters. The video produced was quite good, and in some ways better than Synthesia since it’s an animated video so isn’t supposed to look like a real human. Speakatoo - text to voiceover converter that produces high quality, realistic voiceovers in 120 languages and 700 unique voices. In our testing their claim of “realistic” is a bit overstated - it does still sound like AI.
Curriculum	Reducing time spent drafting curriculum assets	Tools tested include ID-Assist, Kajabi, and Copy.ai	Kajabi and Copy.ai both write copy for emails, social posts, course outlines, case studies, course content, etc. In our testing they were useful to create first drafts of course outlines and descriptions, but not good enough with the actual course content. ID-Assist is an eLearning and classroom training storyboard automation tool that was in beta testing at the time of our experiment and therefore not all tools were available. It is able to automate course outlines, summaries, animation and voiceover scripts, grammar correction, content editing, knowledge checks and assessments, translation, learning objections, image generation, FAQ, glossary, best practices, resources and more. From our limited testing it seems to be a promising tool once it is further refined.

THE HATCHERY

Category	Experiment Name	Description	Results
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Communications	ChatGPT editorial test	Book recommendations based on "Food for Thought" for Hatchery Innovation Newsletter	Ongoing: So far the recommendations are on point but fairly traditional. A benefit is that I haven't necessarily read the books that it recommends so it certainly expands the library of available recs. It does write the recs like a high schooler doing an essay. I am interested in asking it to make recommendations like Ezra Klein, Malcolm Gladwell, Derek Thompson etc. Interesting note: the broader the subject matter for the "Food for Thought" essay, the narrower/more conservative the book pick from ChatGPT. When "Food for thought" is on a uniform topic, ChatGPT gets more ambitious and tangential with it's recommendation.
Business process/reporting	Bard and Sheets for data analysis	Natural Language Data Analysis in Sheets so we could query Sheets for data on reservations and program participation data	Bard hallucinated its own capabilities and wasn't actually able to perform the analysis it said it could because the features haven't been released yet. New tools like Rose are emerging and will be tested.
Business process/reservations	ChatGPT for textual analysis	AI evaluates Hatchery space reservation requests to determine whether they meet criteria or not	Partial success. Was better at matching requests to some criteria than others (struggled with start times and end times during date ranges) would need to tinker with prompt, especially around decision criteria, to consistently get accurate results. Also, because it's not connected to our calendar we would still have to manually verify the date availability.
Video production	Runway to streamline video production	Removing green screen effects in video	Incredibly fast video editing to streamline production of Skills Builder video courses
Communications	Bard for quotations	Generate a list of quotes on a topic	Misattributed a quote. Would have been faster to just Google a list of quotes on a topic.
Business process/reporting	ChatGPT plus Excel to streamline data for reporting	AI written code for Excel to scrape Hatchery YouTube video views to automate counting them for metrics	Ongoing but ChatGPT will tell you to click things that are not on the screen (but can adjust if you tell it that).
Business process/reporting	AgentGPT to streamline data for reporting	Deploy an AI Agent to scrape Hatchery YouTube video views to automate counting them for metrics	Task exceeded number of execution loops on free version of platform
Communications	Staff vs. ChatGPT for targeted comms	A/B Test of Writing Email Template for partnership opportunity invitation. Manual vs. ChatGPT.	Manual: 4:52 ChatGPT: 5:11 ChatGPT's was much more formal and flattering than what I would have typically written, especially

			because we have existing relationships with these partners. It did do a good job of organizing information about the event from a variety of sources, but that utility was undermined by the fact it wrote way too long a message.
Communications	Canva AI Editor for image improvement	Use Canva AI to update student headshots for the Incubator marketing collateral	Successful for the most part. One shortcoming is when there are hands in the picture. Successfully used it to remove a logo from someone's shirt, and to replace hands with peace signs to a professional looking white shirt that matched the student's original shirt.
Communications	ChatGPT for story outlines	Used ChatGPT to start an Incubator story for me.	It works, but created several factual errors from the input date. I would have to load quite a lot of information for it to write a whole article for me accurately.
Communications	Jasper AI for story outlining	Tested JasperAI as a potential better alternative to ChatGPT for writing Incubator/student programming stories.	Got hit with a very early payroll and did not proceed.
Communications	Veed.io for instructional video improvement	Use Veed.io to modify instructional videos so instructors make direct eye contact with key points	Extremely sophisticated tool, and effective use case (used sparingly)

FACET

Category	Experiment Name	Description	Results
Communications	ChatGPT for web content optimization	Collected Facet benefits by audience and asked ChatGPT to edit for tone, clarity, and platform distinctions	Useful results that were edited by a team member and published on a variety of platforms and channels. Content required human curation, and served as a helpful way to make iterative revisions quickly. Particularly useful in adjusting for tone, platform, audience distinctions. Reduces time to tailor messaging.
Project planning	ChatGPT for project plan review	Created project plan for summer communications strategy and rollout. Submitted plan to ChatGPT to ask "how can this plan be improved for clarity and concision?"	Results were very useful to identify missing components/sections of the plan. Results provided more components than were necessary for the specific output, but served as a menu of components that could be applicable.

			Affirmed clear and concise parts of existing plan.
Project management	Monday.com AI for task generation	Describe a deliverable to Monday.com AI and ask it to generate tasks to accomplish	Requires human curation. Excellent way to edit down existing steps rather than create new ones. Project nuances cannot be captured by the AI, so project-specific unique tasks must be generated manually.
Administrative	Otter.ai for meeting notes	Add Otter.ai as a Zoom meeting attendee to record notes	Produced meeting transcript notes in a shareable document Includes screenshots when someone screen shares Creates a meeting summary with timing links in the recording Produces action items from the meeting
Training	Scribe AI	Used Scribe AI to generate training materials	Scribe AI follows an administrator's clicks in a document or website and creates a document with highlighted steps to accomplish a task Excellent for training resource development. Saved time for manual resource creation.
Data		Parsing CVs	

MARKETING

Category	Experiment Name	Description	Results
Content via LLMs	Test certificate title: AI-generated course learning outline, web content	The team had interest in testing an introductory AI course which included AI implications for different types of industry professionals. The LLM tool Chat GPT was used to build content from our bulleted outline. A Google search campaign drove traffic to the resulting web page which collected interest via a form fill. We used clicks to the page as our key metric in comparison to other titles.	During the month of June, this test certificate title was our highest performing certificate web page for total number of clicks. We had approximately one form fill per day for those interested in taking the \$2499 certificate. We also realized from the exercise that we could continue from the web content and sample course outline to a continued build of the full learning with support from the LLM.



Content via LLMs	Video script: AI-generated for certificate trailer and social video	Three video scripts were required for three different videos in two different formats. Videos included a website video trailer, social video trailer, and short format social video for younger audiences.	This activity would normally require several hours, but with the support of LLM Chat GPT, the work was done inside of one hour, resulting in solid initial drafts that required only detailed edits from our internal stakeholder. No one involved relayed that they could tell that the scripts were mostly written by Chat GPT and the content was almost perfectly accurate. The scripts were completed inside of two hours for the full process.
Content via LLMs	Content strategy and email content: Nurture campaign	A nurture campaign was needed for a list of prospects from a content marketing campaign, individuals who had downloaded a white paper. A multi-prompt approach was used with Chat GPT, first prompting for what types of content was recommended for the overall campaign. Then from those results, what specific content would be in a specific email. Informed by those results, then specific copy was written with ChatGPT for the different content areas.	The first nurture email was a success with an open rate of 36% and 28 clicks into our contact form. The next email is imminent, and a similar process will be followed.
Imagery via Generative AI	Social ad imagery	Academic Innovation currently spends \$100s each month on stock imagery, and despite a large set of options, the images often aren't specific enough, or are a bit generic and noticably used by other organizations. Using generative AI image building through Midjourney, we are now creating synthetic and bespoke images that not only have the exact contexts and subject matter, but also use unique stylistic renders reflecting specific artists or styles.	We have several programs that were impossible to find or find many images for, and now we have many options for these titles and used images in a recent promotion. For our August Speaker Series, we rendered an AI image in the style of a famous artist, and the colorful painted image has drawn 1200 clicks and over 500 registrations in two weeks. With the previous completely stock image, we had 175 registrations over 4 weeks. Thanks to generative AI imagery, we will be reducing our spending on stock imagery in the new fiscal year and drawing more eyes and clicks from our campaigns.



Imagery via Generative AI	Email campaign imagery	Specific imagery was needed for the Corporate nurture email #1.	Via generative AI tool Midjourney, imagery was created of Corporate training settings with the right mix of people and a corporate setting that we were looking for. We were previously limited to two good stock images for this.
Imagery via Generative AI	Large context raster image upscaling	We often have a challenge with supplied portrait images being too small for their online contexts, or an image that is too small to use in our large web banners. New Generative AI "upscalers" were tested to solve this.	One very small image from an interview subject was upscaled with high quality results and used on our website. There are some issues with facial features still, a QA check is needed but it worked in this case. Two smaller images were upscaled +200% for the ECE home carousel with nearly perfect results, only moderate blurring. One was a retouched image that I could have downloaded from stock and retouched again, but this tool easily saved 45 minutes by simply upscaling. The tool being tested is NightmareAI.
Imagery via Generative AI	Generative AI image fills	We had two instances where an image needed to be widened with specific content related to the image, normally a heavy retouch task.	The new Photoshop BETA includes Generative AI fills informed by text prompts. I was able to fill the areas without manual retouching in only a few minutes, not 30-40 minutes.
Video	Social video creation	There has been no way for us to affordably build video assets for our social channels, instead it's always a multi \$1000s ordeal with contractors. We are now testing AI-boosted video tools that promise to make videos with text prompts or boosted by AI in a very short time.	We just built our first asset for a promotional event. The time required was 90 minutes. The LLM-style text prompt build failed miserably, but the AI-boosted build resulted in a decent video with a music track and a very believable AI-synthed voiceover. The tools used was InVideo. Other tools being tested include Adobe Express.
Video	Synthetic voiceover creation	Voiceovers are needed for most of the AI video trailers and social videos, but this is expensive and time consuming to do with human VO talents.	We've tried two different tools with success. One video uses the built-in AI VO from InVideo, another with AI synthed VO from Well Said Labs.
Website	Tool testing	Seeking a tool to build webpages from LMM text prompts or text outlines.	Have tested WIX AI, Webflow, and Zyrosite. Have not seen any impressive AI

		Alternately, AI boosts would be helpful.	features yet but am still testing. WIX AI was pulled from the US market after a short time and some decent media mentions, Zyrosite has no meaningful AI features evident despite their marketing, and Webflow is currently in testing.
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ADMISSIONS

Admissions launched the Admissions Chatbot about three weeks ago. They are treating this is somewhat of a soft launch/beta. They did extensive testing on the backend but needed live data and interactions from visitors to the site to see how the bot behaved and answered questions. Particularly ahead of the busy fall. So far they are seeing positive results. They have staff and student workers on the Admissions team working as live chat agents to interact with site visitors. They are also making updates and tweaks to the system on the backend to help the bot become more accurate.

LIBRARIES

The libraries implemented Fireflies this summer. Dylan Stephens, Valeda's EA, estimates that this tool alone saves him 4-6 hours a week.

GENERAL

Category	Experiment Name	Description	Results
Content via LLMs	Email auto-reply		frightening how frequently the ChatGPT bot was saying the exact same thing I would say
Video	Custom videos		
Presentations	Custom presentations		
Data analysis	Analyzing data		
Summarization	Summarizing PDFs		

PROJECTS IN THE WORKS

ECE

- ECE marketing: AI-automated social campaign creation, AI video creation, AI website and landing page creation, AI email campaign boost or creation, generative AI image creation, AI voiceover creation, Brand asset management and development enhancement, AI boosts for search engine marketing, potential newsletter and portal for AI resources and information supporting campus, generative/LLM copy creation for any assets.
- Prospecting/sales automation
- Job aids for ECE team for easier training and onboarding
- Automated course creation at ECE
- Fully personalized courses at ECE
- Automation of invoice/payment processing for ECE
- Continue experimenting with TutorBot
- Continue experimenting with chatbot on website



- Experiment with Canvas Bots to assist students and instructors with Canvas usage
- Continue experimenting with tools to automate common job tasks and free up resources to cover more ground – examples include email generation, course scheduling automation, customer service, etc.
- At ECE, we're projecting that adopting AI tools could save 5,000 hours of staff time, which is roughly \$325,000. We will shift the time into revenue-generating activities, thus achieving our goal of higher revenue with the same staff.

FACET

- Chatbot for help text
- Job aids for Facet team in OOTP and for Units
- PM tools (automated reporting, automated planning)
- Reporting tools

LGS

- Automation of the LGS financial aid process
- AI processing of inbound emails

ADMISSIONS

- Financial Aid Chatbot–targeting early October to have that bot completed and launched on the site
- Student Accounts and Billing Team bot
- Registrar Bot

OTHER IDEAS

- ProvostBot-Multiple chat bots on a single page, each one “trained” to answer certain types of questions from OOTP, viz. finance, policy, process, etc.
- Explore how to bring the model to the data for security reasons
- Indexing and querying Emory scholarship in the open scholarship repository, “What does Emory think?”
- There is also already a significant opportunity to improve the student experience
 - Done well, this gives us another shot at the “one-stop shop”
 - We have identified ways of adding exponentially higher levels of student learning and support interactions without adding a significant number of team members
 - We've deployed new “bots” that leverage AI combined with campus knowledge to power new prospect and student support communications
 - We are researching new types of AI-boosted learning creation that will allow for rapid deployment and flexible pricing
 - Concept conversations have begun for an Emory AI campus intelligence, likely in the form of an LLM or Large language Model, that would be a closed AI system holding all Emory knowledge. Every large organization will need this to stay competitive and leverage emerging efficiency tools

Key learnings

1-IMPACT COMES IN MANY FLAVORS

When it comes to measuring impact, it's important to consider more than just time and efficiency. There are several other important metrics that contribute to overall success. Capacity, quality, and reliability are all key factors that should be taken into account. These tiers of measurement build upon each other to create a comprehensive understanding of performance.

Currently, there are significant opportunities for faculty and staff to enhance effectiveness, efficiency, and quality. This opens up new possibilities for achieving operational excellence. However, it's crucial to be discerning when it comes to tools that claim to have "AI features" for marketing purposes. Some of these tools may not be fully mature in their application of the technology or may lack meaningful integration. It's important to keep an eye out for better versions that may emerge in the near future and closely monitor their progress.

On the other hand, there are other tools and products that have proven to be impressive and transformative, immediately expanding our efficiency and capabilities. These innovations have provided tangible benefits and have the potential to drive further improvements.

Despite the progress made this summer, there is still much more exploration and experimentation needed to uncover additional opportunities. The marketplace is constantly evolving, and it's vital to stay current in order to adapt to the changing landscape. Continuous exploration and experimentation will be an ongoing requirement to ensure continued growth and success.

There are opportunities in all these tiers at Emory.

TIER 1 AI-IMPROVING TASK QUALITY

Tier 1 tasks are designed to assist with existing or known tasks that typically involve just one step, effectively replacing a single function. Some examples include planning a project, reviewing a draft, taking meeting notes, generating images, creating copies, and summarizing content. While these may not always save time, they contribute to improving the overall quality of work. It is important to note that constant human checkpoints and input are necessary to ensure their effectiveness.

TIER 2 AI-ADDING CAPACITY TO A PERSON OR TEAM

AI tools can also be instrumental in facilitating the accomplishment of tasks that would otherwise be out of reach. This represents a Tier 2 impact, where AI doesn't just enhance what we already do, but rather equips us with the ability to carry out entirely new activities. For instance, AI-powered data analysis tools can enable a person without a background in data science to interpret complex data sets and derive meaningful insights. Similarly, language translation tools can make a monolingual person effectively multilingual when communicating with international colleagues or clients. Thus, AI not only amplifies our existing skills but also empowers us with new ones, broadening our capabilities and potential.

TIER 3 AI-MANAGING PROCESSES

Tier 3 AI tools offer a significantly positive return on investment in terms of time and quality. They excel at executing multi-step processes and translating organizational understanding, including mission, brand, and strategies. Moreover, they are capable of creating a wide range of assets such as

presentations, videos, eBooks, and websites. With access to research capabilities, they can interpret market trends and provide valuable recommendations. These tools can also automate various tasks, allowing users to create their own templates and populate assets with minimal stylistic guidance. While they demonstrate a high level of confidence, human checks and inputs are still necessary to ensure accuracy and refinement. By eliminating steps from tiers 1 and 2, they contribute to a higher overall return on investment. However, it is important to note that these tools require well-defined tasks and human involvement for final checks and editing.

In summary, these AI tools bring about noticeable improvements in both time and quality. They possess the ability to execute complex processes, translate organizational knowledge, create diverse assets, conduct research, and automate tasks. While they exhibit a high level of confidence, human oversight is essential for accurate and refined results. By integrating these tools into workflows, organizations can expect higher returns on investment and streamlined operations, while still maintaining human involvement for task definition, verification, and editing.

TIER 4 AI—MANAGING JOBS

Tier 4 AI is capable of assuming entire job roles, not just tasks or processes. It has the potential to function as a fully-fledged AI personal assistant. Instead of measuring impact in hours, it is now evaluated based on its ability to perform tasks equivalent to a full-time employee (FTE). We are approaching a reality where AI can operate autonomously, with minimal human intervention. In fact, this tier of AI may even manage humans and other intelligent systems. It operates in a proactive manner, providing notifications, strategic suggestions, and guidance for sets of actions. In some cases, it can even make decisions in a directorial style. These systems are capable of creating and managing their own brand and communication platforms, using organizational strategies and information. They can handle a subset of activities without needing to consult with the human team, taking a proactive approach.

2—HUMANS ARE STILL REQUIRED, BUT DIFFERENTLY

STILL NEED HUMAN EXPERTS

In order to ensure accuracy and quality in lower tiers, as well as maintain stylistic and tonal accuracy in higher tiers, human checkpoints and approvals play a crucial role. Furthermore, emotional intelligence stands as a vital human contribution to the workflow of AI, enhancing its overall effectiveness.

IT MAY BECOME DIFFICULT TO ACCESS ENOUGH EXPERTS

With the replacement of entry-level and mid-tier professionals by AI, the future may see a scarcity of senior leaders who traditionally emerge from these ranks. As a result, it becomes imperative to develop a new process for training and cultivating expert leaders to meet the evolving demands of the workforce. This proactive approach will ensure a steady supply of capable and skilled individuals in leadership positions.

WRITING MIGHT BE THE LEAST IMPORTANT THING YOU DO

New tools are revolutionizing the writing process by enabling writers to focus solely on high-level themes and copy outlines. With the help of AI tools acting as junior writers, they can provide multiple copy options based on inputs and outlines provided by human writers. This innovative approach saves valuable time that would otherwise be spent on writing, allowing writers to dedicate more time to strategy, critical thinking, and fact-finding. By streamlining the writing process, these tools empower writers to enhance their productivity and creativity.

3—THERE ARE ETHICAL AND EQUITY CONSIDERATIONS

AI models like ChatGPT heavily rely on extensive datasets for training, but it is imperative to ensure that these datasets adhere to copyright laws and fair use principles. Unauthorized inclusion of copyrighted materials can lead to legal consequences and copyright infringement claims. To address this, clear boundaries regarding fair use in AI data training need to be established to prevent the misuse or exploitation of copyrighted content.

Another crucial aspect to consider is the potential bias and inequality perpetuated by AI models. If the training data is not diverse and inclusive, the AI may unintentionally reinforce existing biases, resulting in discriminatory outcomes and unjust societal consequences. It is essential to prioritize diverse and inclusive datasets to mitigate such risks and ensure fair and unbiased AI systems.

As chatbots become more autonomous and capable of making decisions, ethical accountability becomes a critical concern. Determining responsibility in cases where a chatbot provides harmful or inaccurate information can be challenging. It requires careful consideration and the development of robust frameworks to establish accountability and ensure that chatbots are designed and deployed responsibly, with a focus on user safety and accurate information dissemination.

Additionally, the ethical implications of AI extend to the creative industry. Artists, writers, and creators have expressed concerns about their work being exploited without consent, compensation, or proper credit by AI companies profiting from their labor. This raises significant issues regarding fair payment and the need to establish equitable practices that recognize the value of creative contributions and ensure fair compensation for artists.

In conclusion, responsible AI use requires addressing various aspects, including copyright compliance, diversity in training data, ethical accountability of AI systems, and fair compensation for creators. Striving for transparency, inclusivity, and ethical constraints will help harness the potential of AI while minimizing the risks associated with its deployment and ensuring a fair and equitable digital landscape.

4—AI IS INNATELY LINKED TO OTHER TECHNOLOGIES

Automation remains a crucial element in the marketplace, even as AI takes center stage. The integration of AI into automation processes opens doors for enhanced recommendations and construction of automated systems. As AI and automation continue to advance, their interdependence and mutual benefits will grow stronger. By streamlining repetitive tasks like data entry and customer service, automation allows human workers to dedicate their time and expertise to more intricate or innovative projects. Moreover, automation has the potential to bolster workplace safety and precision by minimizing human error and increasing efficiency in precision-driven processes. Embracing plain old automation is key to unlocking productivity and unleashing the full potential of businesses in today's dynamic landscape.

5—AI IS ALREADY DISRUPTIVE

TASK, BUT NOT JOB, DISRUPTION IS INEVITABLE

AI is poised to bring about significant disruption in various industries, fundamentally transforming how specific tasks are carried out in the short term. By automating routine and mundane tasks, AI has the potential to boost efficiency, minimize errors, and empower human workers to focus on the more intricate and creative aspects of their roles. In the near future, AI is expected to disrupt tasks such as

data entry and analysis, customer service, financial auditing, medical image diagnosis, and manufacturing assembly line production. However, while AI can assume certain responsibilities, the human touch remains indispensable in decision-making, problem-solving, and relationship-building aspects of most jobs. Undoubtedly, AI will reshape the work landscape, albeit with a gradual and non-immediate impact on job displacement.

THERE ARE SOME ALREADY OBVIOUS DOMAINS/MODELS WHERE THERE CAN BE SUBSTANTIAL IMPACT

AI has the potential to revolutionize various areas, bringing about significant improvements and efficiency. In terms of communication and writing, AI can streamline the process, making it more effective and precise. Meeting note-taking and transcribing can also be enhanced through AI, simplifying the task and ensuring accurate documentation. Additionally, AI can be applied to project management, helping to streamline workflows and optimize resource allocation.

Visual arts can also benefit from AI advancements. With AI-powered illustration, photography, and videography tools, artists can enhance their creativity and produce stunning visuals more efficiently. UX design can be improved by leveraging AI algorithms to create intuitive and user-friendly interfaces. Moreover, AI can have a significant impact on marketing and sales, enabling personalized campaigns, targeted advertisements, and advanced analytics for better customer engagement and conversion rates.

AI's potential extends beyond creative fields. In the realm of education, AI-powered chatbots can assist students by providing quick access to information, helping with individual learning styles, and reducing reliance on human instructors. Training and development can also be optimized through AI, enabling rapid creation of job aids, videos, and chatbots for querying reference materials. In customer service, chatbots are already being deployed to provide efficient support, and further advancements are being planned. In the healthcare sector, AI can aid in medical image diagnosis, predictive healthcare, patient data management, and even drug discovery, leading to improved patient care and outcomes.

Overall, AI has the power to transform numerous domains, revolutionizing the way we work, learn, create, and interact. By harnessing its capabilities, we can unlock new levels of productivity, efficiency, and innovation across various industries.

6-KNOWLEDGE MANAGEMENT IS CRITICAL

Knowledge has emerged as a powerful performance enabler, offering abundant opportunities for its application. By leveraging chatbots and other AI tools, organizations can effectively harvest and utilize valuable knowledge. To achieve this outcome, it is crucial for workers to have access to centralized databases that contain their collective knowledge. This approach reflects a resurgence of knowledge management, which was a hot topic 25 years ago. However, the potential efficiencies gained from this integration are yet to be fully understood. It is possible that this new wave of knowledge management could ignite a revolution in business automation and processes, paving the way for enhanced productivity and innovation.

Documentation and digitization is more important than ever



By embracing knowledge management as a performance enabler, organizations can tap into a wealth of untapped potential. The ability to capture and utilize knowledge through chatbots and AI tools unlocks new possibilities for efficiency and effectiveness. Centralized databases play a pivotal role in this process, providing a repository for valuable insights and expertise. This resurgence of knowledge management signifies a shift towards leveraging past experiences and learning from them. Although the exact impact of these advancements remains to be seen, there is a possibility for a transformative revolution in business automation and processes. The integration of knowledge management has the potential to spark innovation and drive new levels of productivity, enabling organizations to thrive in an ever-evolving landscape.

Organizations must demonstrate a certain level of maturity when it comes to digital assets, documentation, and content strategy in order to effectively support AI transformation. If these foundations are not already in place, a swift and accelerated digital transformation will be necessary to bring the organization up to an AI-ready state. Failure to undergo such a transformation will leave organizations reliant on fragmented, single-task tools, putting them at risk in the competitive marketplace.

7–PEOPLE AND CULTURE NEED TO BE ALIGNED

Training is a crucial component at all levels to ensure a successful AI transformation. Corporate leadership must prioritize continuous re-education and awareness of macro changes, concepts, and systems. Top and retained mid-level professionals should undergo constant upskilling on new tools and workflow approaches. Additionally, entry-level team members need to be re-educated if they are being replaced or trained on new tools if they are retained. However, our current Emory culture and ways of working do not align naturally with this transformation. It is imperative to address this digital gap to facilitate a rapid and holistic AI transformation in the university. While it may not impede the immediate deployment of specific AI efficiency tools, it is crucial to explore opportunities for leapfrogging and catalyzing change. Establishing a clear path forward is essential.

To ensure the success of AI transformation, comprehensive training and support are required. It is not enough for leadership to have surface-level acronym knowledge; they must have a deep understanding of the upcoming AI transformation and the potential futures it holds. Ongoing updates and learning from AI subject matter experts (SMEs) are recommended for Emory leadership. A tool and transformation roadmap should be developed for the campus, with a mandate for adoption by top Emory leadership. This roadmap should be realigned at least annually to accommodate emerging technologies and evolving needs. Moreover, mid-level leadership and teams should receive training on new AI tools and workflows as they become available. Campus workshops can also be offered to facilitate knowledge transfer. Regular communication, such as monthly online workshops, newsletters, or videos, should be utilized to update campus teams on changes and emerging ideas.

The implementation of AI workflows may result in a reduced need for junior to mid-level team members. It is crucial to initiate a campus-wide dialogue led by HR to address this upcoming attrition. The focus should be on retraining affected individuals for new skills and exploring alternative outcomes. Embracing a proactive approach to talent management will ensure a smoother transition and mitigate any potential negative impact. By providing the necessary training and support, Emory University can navigate the AI transformation successfully while considering the well-being and professional development of its workforce.

INTERACTING WITH AI TOOLS IS CRUCIAL, YET IT IS NOT WIDELY EMBRACED

Currently, AI tools are often perceived as a means to solve specific tasks, similar to using a search engine. However, as these tools become more advanced, users will recognize the potential in connecting tasks both within and across applications, along with the automation opportunities they offer.

Adopting a mindset of "connecting and integrating tools" is the ideal approach to fully leverage the capabilities of AI.

8-DEPLOYMENT IS ALREADY LATE BUT IT'S CRITICAL

EMPLOYEES ARE GOING TO USE THESE TOOLS, REGARDLESS

Despite the existence of guidelines discouraging the use of certain tools, Emory team members are determined to leverage these tools to streamline their work and maximize their time efficiency. It is not a matter of if they will use them, but rather when they will adopt them. Therefore, it is essential to recommend a core set of tools as a baseline and provide licenses and support for these tools. By doing so, Emory can empower its team members to excel in their roles, enhance productivity, and achieve optimal results. This proactive approach ensures that Emory stays ahead of the curve and maintains a competitive edge in the ever-evolving business landscape. digital/bus apps/support team is missing

WE HAVE A NARROW AND CLOSING WINDOW OF OPPORTUNITY TO ROLLOUT ENTERPRISE TOOLS

People are embracing the use of tools that suit their preferences, streamlining their workflow and enhancing productivity. To stay ahead in this rapidly evolving landscape, it is imperative that we take action proactively. The traditional approach of lengthy approval cycles in technology may no longer be effective. Instead, we require an agile organizational mindset that enables us to swiftly respond to and align with technological advancements. By embracing nimbleness, we can effectively adapt to changes, ensuring our continued success in an ever-changing technological landscape.

SECURITY IS A THING

Internal IT teams must remain vigilant regarding emerging threats, particularly as the "intelligences" of other organizations and nations continue to advance in both sophistication and potential danger.

ACCESS TO INTEGRATIONS OF WORK TOOLS IS CRITICAL BUT LOW

In this era of rapid technological advancements, organizations are facing seismic changes in work tools and workflow concepts. However, many organizations are hindered by internal teams working in silos, which limits their potential for growth and innovation. To successfully launch complex and costly AI tools, it is crucial to establish connections between various tools and teams, both within and outside of Emory. Emory should prioritize finding ways to streamline the integration of functional aspects and data within the toolchain, ensuring a seamless and efficient workflow. By breaking down barriers and fostering collaboration across teams, Emory can unlock new possibilities and drive meaningful progress in this dynamic landscape.

Recommendations for Fall 2023

1–WE NEED AN EMORY-WIDE SOLUTION RIGHT AWAY IN SOME AREAS

Based on the results and needs in the future, and focusing on areas with widespread immediate adoption potential, we have identified critical areas and proto-requirements for new tools. We’re hopeful that we can find solutions for these needs working with OIT and other key stakeholders.

These areas are so “hot” that users are going to continue using existing tools or find new ones. The longer this continues, the harder it’s going to be to get this organized and secure.

Use case	Examples	Description
Generative text	ChatGPT	Will we continue to use an open LLM? We should start discussion about a closed LLM to safeguard information
Meeting notes	Fireflies	
Chatbot	ChatThing, Cody	The main function is summarization and presentations so we want to be sure that there’s an Emory-wide solution that makes sure that the content, which is proprietary to Emory, is not spread (too) far beyond our firewall
Generative imagery	Midjourney, Dall-E	As this improves, these tools will replace much of our marketing imagery, replacing stock image and illustration accounts
Generative video	InVideo, Pictory	Tools that will build videos from a text line or script and include AI voiceovers

2–WORK WITH OIT ON SECURITY AND INTEGRATIONS WITH ENTERPRISE APPS

As AI evolves and becomes increasingly ingrained in our operational fabric, it is of utmost importance that we partner with the Office of Information Technology (OIT) to ensure stringent security measures are integrated within our enterprise applications. The introduction of AI does not only enhance productivity and efficiency but also introduces a new dimension of security vulnerabilities. Therefore, our collective efforts need to focus on mitigating potential risks, ensuring data privacy, and strengthening our cyber defense mechanisms.

Simultaneously, seamless integration with enterprise applications is an equally critical aspect that demands our attention. By working closely with OIT, we can aim to create a harmonized digital ecosystem where our AI tools and enterprise systems coexist and interact flawlessly. Such integration will not only amplify the utility of individual tools but also foster a sophisticated, interconnected work environment that enhances productivity, promotes innovation, and drives Emory's growth in the long run.

3–PROVIDE BROAD AND DEEP SUPPORT ACROSS EMORY

Academic Innovation is excited to offer a comprehensive consulting service focusing on AI, automation, digital apps, and implementation. This service aims to provide extra help and support to



units interested in exploring the potential of AI. We are committed to working closely with these units, identifying new use cases and departments, and collaborating with them to uncover AI and automation opportunities. By leveraging our expertise, we can assist in the successful integration of AI technologies into various processes, enhancing efficiency and productivity.

Additionally, we are partnering with the Center for AI Learning to deliver informative lunch and learn sessions, webinars, and other educational resources for staff and faculty. These initiatives aim to foster a culture of learning and knowledge sharing, ensuring that everyone has the opportunity to understand and benefit from AI technologies. We believe that continuous exploration and experimentation are crucial in harnessing the full potential of AI. Through these efforts, we will stay at the forefront of AI advancements and continue to provide innovative solutions and support to our colleagues.

While we understand that some areas may require more time and careful consideration, we are dedicated to working closely with each unit to address their specific needs and challenges. Our goal is to facilitate a seamless integration of AI technologies, empowering units to optimize their operations and achieve their goals. Together, we can navigate the ever-evolving landscape of AI and drive transformative change across the organization.

