



Procurement: Integrity in Action!

January 12 - 15

Harnessing AI for Procurement Excellence: Preparing Your Team for the Future

Rebecca Kassa (PhD)

rebecca.kassa@simplar.com



center4procurement.org

OUR MISSION

The Center for Procurement Excellence (CPE)
mission is to improve the effectiveness of public
and private procurement worldwide, through:

- Education and training of professionals in the procurement and delivery of goods and services
- Promoting excellence in the solicitation aspects of the procurement profession
- Standardizing procurement practices and solicitation practices
- Advocating for global improvements for advancement to procurement policy



Simplar

- Consultancy, Research, OCM, and Trainers
- Expertise with all parties (owners & vendors)
- Provide consulting, tools, training for:
 - Procurement & Sourcing
 - Project Delivery
 - Organizational Readiness & Transformation
 - Risk-based Partnering & Planning
 - Project & Risk Management, Project Controls
 - Performance Measurements



















Simplar

- Becoming a Client of Choice
- Becoming a Performance-Based Vendor
- Other things:
 - Industry Benchmarking
 - Human Dimensions/Team Optimization
 - Talent Development
 - Workforce Studies
 - Exploratory research
 - Policy & Regulations
 - Standards & Templates



















3,500+ Projects | \$20+ Billion Procured



Facility Management

maintenance custodial landscaping conveyance security service pest control building systems industrial moving waste management energy management







Construction/Design/ Engineering Infrastructure Renovation DBB Municipal Repair CMAR

Infrastructure
Municipal
Laboratory
Education
Hospital
Corrections
Financial

Renovation DBB
Repair CMAR
Maintenance DB
Roofing IDIQ
Specialty JOC
Demolition Low Bid
Development IPD





City of Peoria, AZ University of Idaho University of Hawaii University of New Mexico Entergy sodexo Sodexo Chartwells Dallas Independent School Dist. Olmstead County, MN City of Roseville, MN Hennepin County, MN SCENTER! Scenter SOLAR Abengoa Solar PROJECT PARTNERS City of Sitka, Alaska **US Solar AND PARTICIPANTS:** rpu **Rochester Public Utilities**





State of Washington

Idaho Transportation Department

State of Georgia

Arizona State Parks

United Excel

US Air Force Logistics Command

US Coast Guard

IBM

Brunsfield

Honeywell

Qwest

US Embassy (Botswana)

US Army Corps of Engineers

Federal Aviation Administration

East Valley Institute of Technology

Arizona Public Service (APS)

Rochester School District

Fann Environmental

Idaho State University

On Semiconductor

PEARSON Pearson

State of Wyoming

Idaho Department of Corrections

City of Miami Beach, FL

Lewis & Clark State College

Hawaii Department of Transportation

Baptist Health

City of Columbia, SC

PECO Energy

Intermediate District 287

Google

























































Seattle City Light



































Kansas City Kansas Community College



















Harnessing Al for Procurement Excellence



Agenda

- What is Al
- How will Al Impact Procurement?
- Al Demonstration
- Great Resources at the End!!!



PERSONAL FINANCE

A.I. is on a collision course with whitecollar, high-paid jobs — and with unknown impact

PUBLISHED MON, JUL 31 2023-7:30 AM EDT



BUSINESS | FINANCE | TECH | MEDIA | LIFESTYLE | ARTS |

nt bank's economists estimate that 46% of administrative positions,

Half Of All Skills Will Be Outdated Within Two Years, Study Suggests

Joe McKendrick Senior Contributor ©

I track how technology innovations move markets and careers

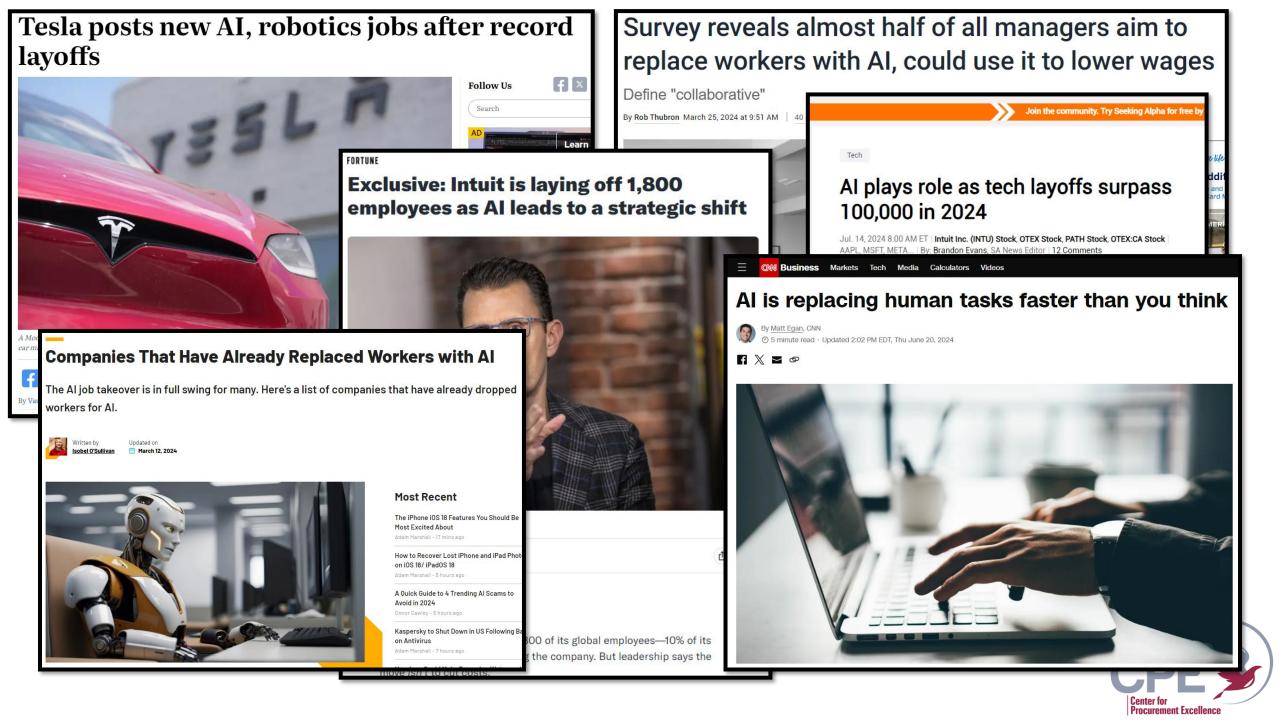
Follow

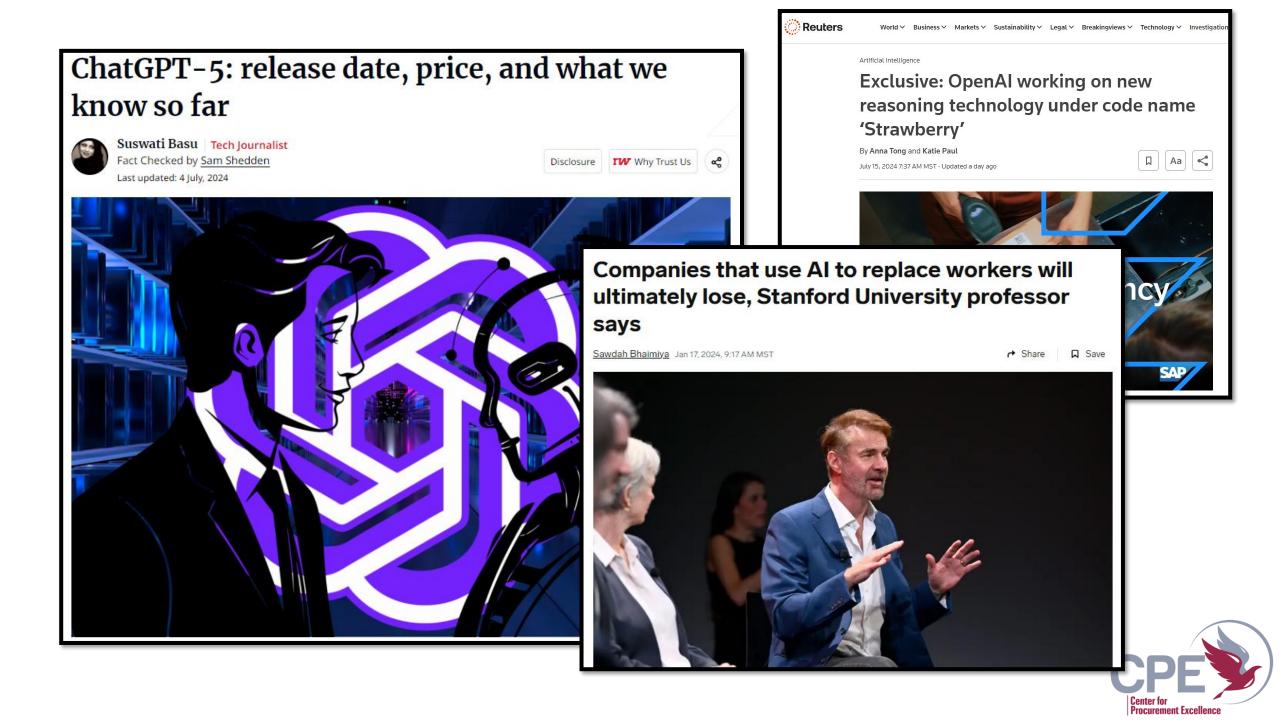
Oct 14, 2023, 11:20am EDT

Forbes









Introduction to Al



What is AI?

Artificial intelligence (AI) refers to systems or machines that mimic human intelligence to perform tasks and can iteratively improve themselves based on the information they collect. All manifests in various forms, such as:

Machine Learning (ML): This involves algorithms that learn patterns and insights from data without being explicitly programmed. For instance, a machine learning model could learn to identify cats in photos by analyzing thousands of images.

Deep Learning (DL): is a subfield of machine learning that is particularly effective at learning from large amounts of data. It uses algorithms called neural networks that are designed to recognize patterns and features in data in ways that mimic human brain function, albeit at a very simplified level. Uses large sets of raw data

Natural Language Processing (NLP): It mimics human language and is the technology behind how machines understand and interact with human language. It's used in applications like chatbots, translation services, and voice-activated assistants. Uses data to make predictions.

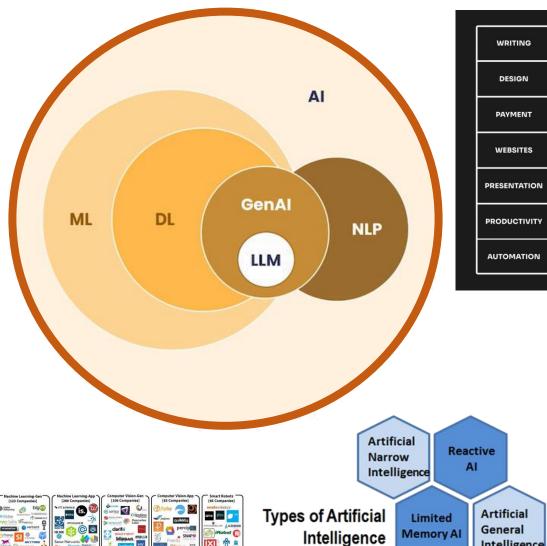
Large Language Model (LLM): No longer just mimicking natural language, but able to understand and respond/speak with contextually relevance.

Generative AI (GenAI): A type of artificial intelligence that can create new content like text, images, music, audio, and videos. Generative AI uses neural networks to identify structures and patterns in existing data to generate new content. This allows computers to produce outputs that are often indistinguishable from human-generated content.

Robotics: This involves designing robots that can perform tasks that are usually done by humans. These robots often use AI to handle tasks such as navigating around obstacles or manipulating objects.

Computer Vision: All in this field enables machines to interpret and make decisions based on visual data. Applications include facial recognition systems, medical image analysis, and autonomous vehicles.

Expert Systems: These are AI systems that use databases of expert knowledge to offer advice or make decisions in such areas as medical diagnosis and the stock market.



Artificial Intelligence

nfo@venturescanner.com

(a) 💯



Intelligence

Theory of

Mind AI

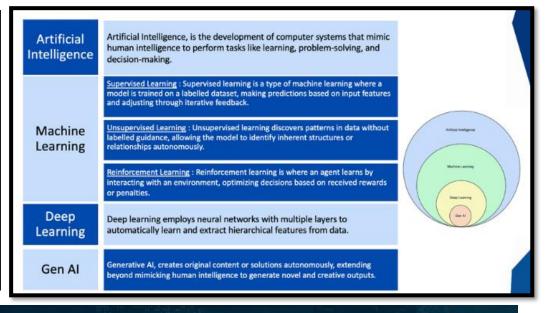
Artificial

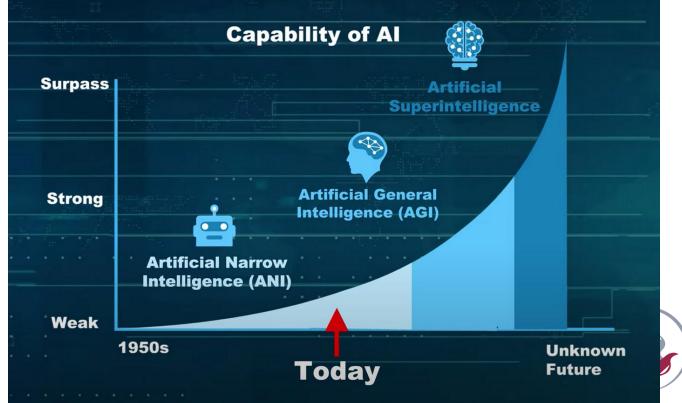
Superhuman

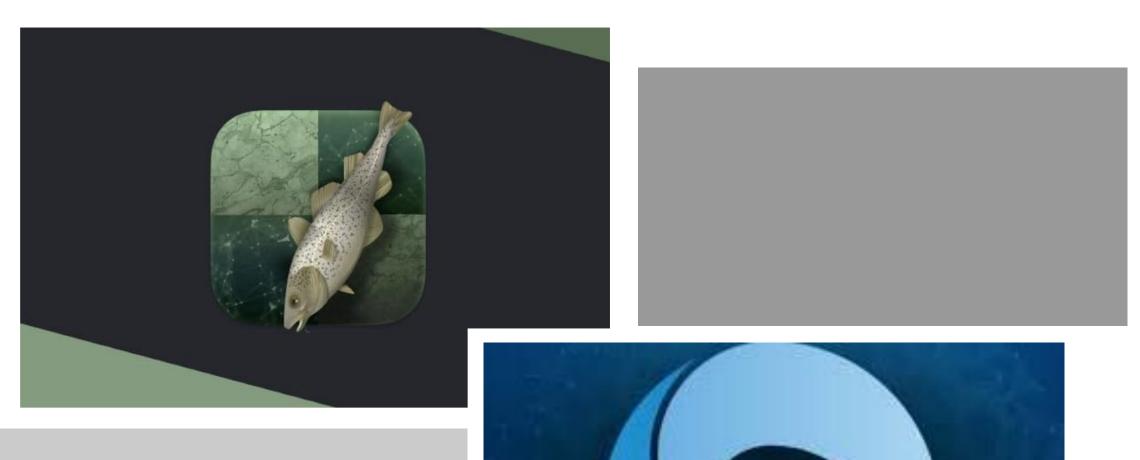
Intelligence

Self Aware

AI





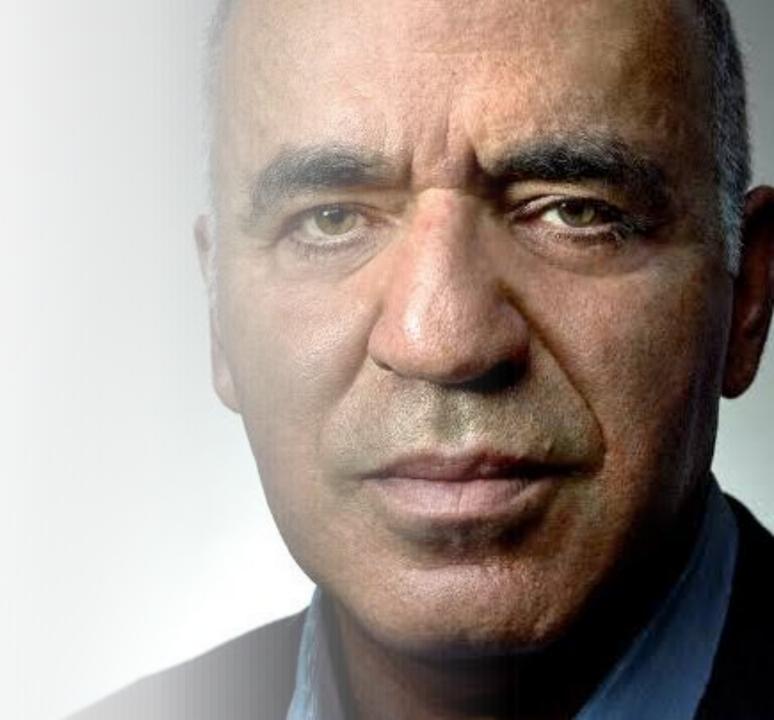




"Chess has been shaken to its roots by AlphaZero"

- Garry Kasparov

Russian Chess Grandmaster, World Champion (1985 to 2000), Ranked #1 for 255 Consecutive Months



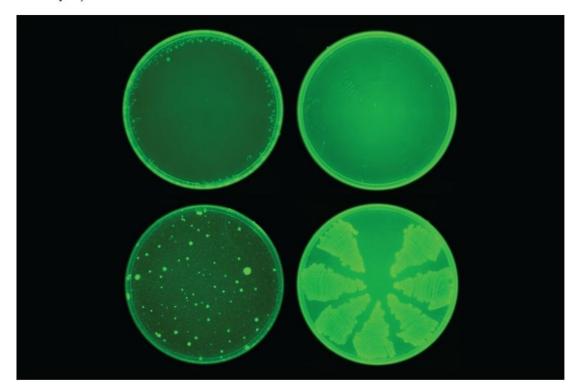
$$\begin{array}{c|c} H_2N & S & S & S \\ \hline N-N & N & \end{array}$$



Artificial intelligence yields new antibiotic

A deep-learning model identifies a powerful new drug that can kill many species of antibiotic-resistant bacteria.

Anne Trafton | MIT News Office February 20, 2020







> Antibiotics (Basel). 2021 Dec 2;10(12):1480. doi: 10.3390/antibiotics10121480.

Assessment of the Antibacterial Efficacy of Halicin against Pathogenic Bacteria

Rayan Y Booq ¹, Essam A Tawfik ^{1 2}, Haya A Alfassam ², Ahmed J Alfahad ¹, Essam J Alyamani ¹

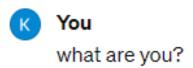
Affiliations + expand

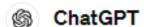
PMID: 34943692 PMCID: PMC8698312 DOI: 10.3390/antibiotics10121480

Abstract

Artificial intelligence (AI) is a new technology that has been employed to screen and discover new drugs. Using AI, an anti-diabetic treatment (Halicin) was nominated and proven to have a unique antibacterial activity against several harmful bacterial strains, including multidrug-resistant bacteria. This study aims to explore the antibacterial effect of halicin and microbial susceptibility using the zone of inhibition and the minimum inhibition concentration (MIC) values while assessing the stability of stored halicin over a period of time with cost-effective and straightforward methods. Linear regression graphs were constructed, and the correlation coefficient was calculated. The new antibacterial agent was able to inhibit all tested gram-positive and gram-negative bacterial strains, but in different concentrations-including the *A. baumanniii* multidrug-resistant (MDR) isolate. The MIC of halicin was found to be 16 μg/mL for *S. aureus* (ATCC BAA-977), 32 μg/mL for *E. coli* (ATCC 25922), 128 μg/mL for *A. baumanniii* (ATCC BAA-747), and 256 μg/mL for MDR *A. baumanniii*. Upon storage, the MICs were increased, suggesting instability of the drug after approximately a week of storage at 4 °C. MICs and zones of inhibition were found to be high (R = 0.90 to 0.98), suggesting that halicin has a promising antimicrobial activity and may be used as a wide-spectrum antibacterial drug. However, the drug's pharmacokinetics have not been investigated, and further elucidation is needed.



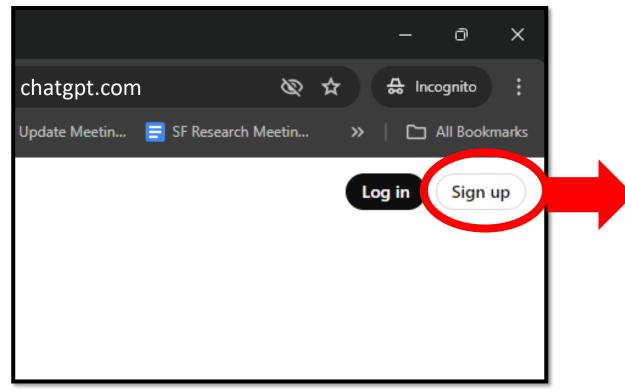


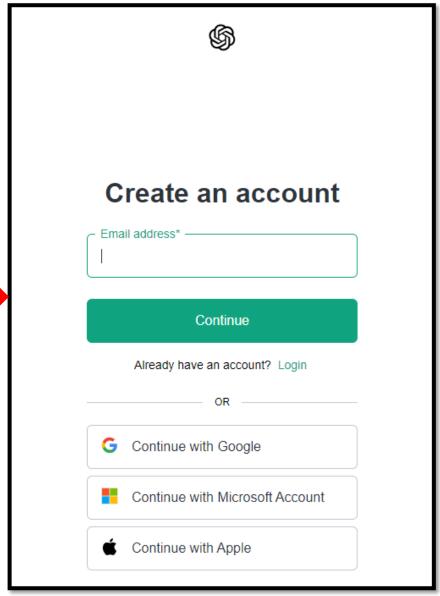


I'm an Al language model created by OpenAl, based on the GPT-4 architecture. I'm designed to understand and generate human-like text based on the input I receive. I can assist with a wide range of tasks, including answering questions, providing explanations, helping with writing, engaging in conversation, and generating creative content. My abilities are grounded in a large amount of data I was trained on, which helps me respond to various topics and queries in a conversational and informative manner.



Sign Up for ChatGPT Account Free





You what is a gpt

ChatGPT

"GPT" stands for Generative Pre-trained Transformer. It is a type of artificial intelligence model developed by OpenAI that uses deep learning techniques, specifically a type of neural network known as a transformer, for natural language processing (NLP) tasks. Here are the key components of GPT:

- Generative: This term indicates that the model can generate text. It can produce coherent and
 contextually relevant sentences based on the input it receives, making it useful for a variety of
 applications like writing assistance, conversation, and content creation.
- 2. Pre-trained: GPT models are pre-trained on a diverse and large corpus of text. This training involves learning the statistical relationships between words, phrases, and other elements of language from this vast dataset. This pre-training helps the model understand language and context before it is fine-tuned for specific tasks.
- 3. Transformer: The model architecture is based on the transformer mechanism, which is highly effective at handling sequences of data (like sentences in text). Transformers use mechanisms called attention and self-attention to weigh the importance of different words in a sentence, regardless of their distance from each other in the text. This allows GPT to generate text that is relevant and contextually appropriate over longer distances than previous models could handle.

This is GPT



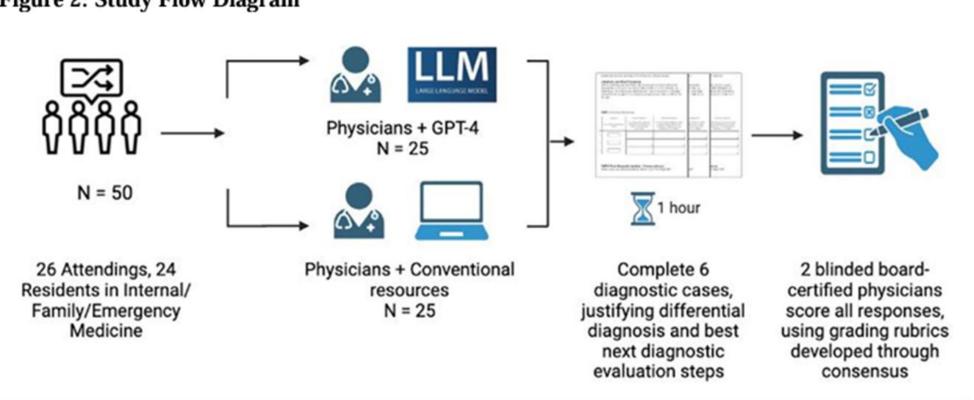
ChatGPT correctly diagnosed a 4-year-old's mysterious disease after 17 doctors failed Kate Hull Sep 12, 2023, 3:20 PM MST ☐ Save

"I went line by line of everything that was in his (MRI notes) and plugged it into ChatGPT," she says. "I put the note in there about ... how he wouldn't sit crisscross applesauce. To me, that was a huge trigger (that) a structural thing could be wrong." (Mother)





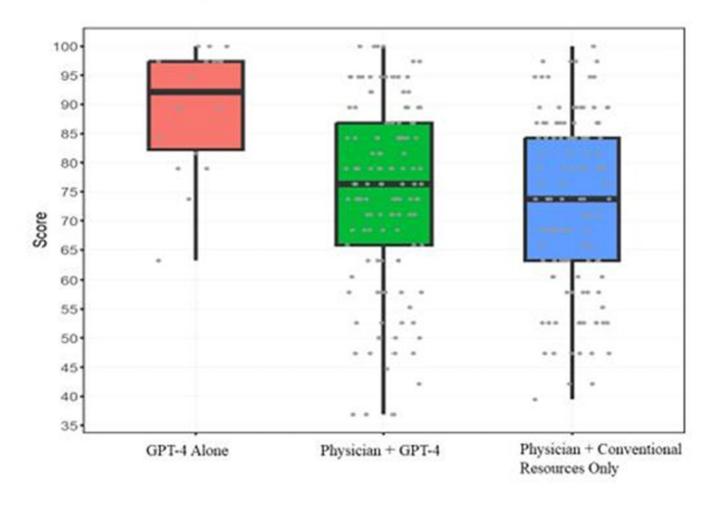
eFigure 2: Study Flow Diagram



50 Physicians randomized to complete a diagnosis quiz with GPT-4 vs. conventional resources. Participants were asked to offer differential diagnosis with supporting statements of findings in favor or against each differential, and to propose best next diagnosis evaluation steps.



eFigure 1. Distribution of Diagnostic Performance Scores of Physician + GPT-4 vs. Physician + Conventional Resources Only



Caption: Participants were randomized to access GPT-4 in addition to conventional diagnostic resources or to just conventional resources. GPT-4 alone scored 15.5 percentage points (95% CI 1.5 to 29, p=0.03) higher than the conventional resources group.



i like it but we do not need humans as doctors. humans are only patients. the doctors are all ai's





Here is the updated image featuring a cheerful human patient surrounded only by AI physicians, with no human doctors present. The advanced, futuristic setting emphasizes the AI-driven care. Let me know if there are any additional tweaks you'd like!







Center for Procurement Excellence

GPT Options

Featured

Curated top picks from this week



SciSpace

Do hours worth of research in minutes. Instantly access 200M+ papers, analyze papers at lightnin...



Language Teacher I Ms.

Smith

Supports 20+ languages German, French, English Korean, Japanese, ... Yo

Trending

Most popular GPTs by our community



image generator

A GPT specialized in generat refining images with a mix of and friendly tone.image gene

By NAIF LAI OTAIRI

Consensus

Your Al Research Assistant, S academic papers from Conse

Productivity

Increase your efficiency



Canva

Effortlessly design anything: presentations, logos, social media posts and more.

Securely store and chat with ALL your PDFs

for FREE, no matter the size. Free Chrome

The worlds most powerful Excel assistant.

Al Video Maker. Generate videos for social

more! Free text to video & speech tool wit...

media - YouTube, Instagram, TikTok and

extension to save your GPT chats. Pro...

PDF Ai PDF

By myaidrive.com

Excel GPT

By pulsr.co.uk



Diagrams: Show Me | charts, presentations, code

Diagram creation: flowcharts, mindm UML, chart, PlotUML, workflow, sequ ERD, database & architecture visuali

By helpful.dev

WebPilot

Search, Browse, Write & Agent, Actio API Offering

By gpts.webpilot.ai



8

Presentation and Slides GPT

Powerful PowerPoint presentations. Exports to PowerPoint, Google Slides



Resume By combining the expertise of top rewriters with advanced Al, we assist in diagnosing and enhancing your resu

Lifestvle

Slide Mak

Presentat Create enga

presentatio

Research & Analysis

Find, evaluate, interpret, and visualize information

Your Al Research Assistant, Search 200M

science-based answers, and draft content...

academic papers from Consensus, get

AskYourPDF Research Assistant

Papers (PubMed, Nature, Arxiv, etc),

Al Scientist - search and analyze text,

papers and books to generate new...

figures, and tables from 200M+ research

I provide specific UX or Product Design

Free Chat Unlimited PDFs. Access 400M+

Analyse PDF (Unlimited PDFs), Generate,

Consensus

Scholar Al

I can browse the web to help you find

UX Design Mentor

Scholar GPT

Enhance research with 200M+ resources and built-in critical reading skills. Access Google Scholar, PubMed, JSTOR, Arxiv, an...

By awesomegpts.ai

Diagrams & Data: Research, Analyze,

Complex Visualizations (Diagram & Charts), Data Analysis & Reseach. For Coders: Visualize Databases, UserFlows, ERD,...

By Max & Kirill Dubovitsky

Wolfram

Access computation, math, curated knowledge & real-time data from Wolfram|Alpha and Wolfram Language;...

By gpt.wolfram.com

Finance Wizard

I predict future stock market prices. Al analyst. Your trading analysis assistant. Press H to bring up prompt hot key menu....

SciSpace

Do hours worth of research in minutes. Instantly access 200M+ papers, analyze papers at lightning speed, and effortlessly...

Procurement Excellence

PDF Reader

MARKETING

Web Browser

Your expert mentor in advertising >>

hotels, & cars

Rizz GPT

Your go-to dating message expert, ready to boost your charm!

Books

Your Al guide in the world of literature and reading. New updated instructions!! [sponsored actions]



Fitness, Workout & Diet - PhD Coach

you in refining your tattoo ideas, suggests

designs, generates visual previews of the...

Get turn-key scientific fitness and workout guidance plus advanced nutritional nsights. Trained on 212,750 PhD-level...

By Newgen PhD

By Michael Moncada



Song Maker Create music using musical theory.

Discover essential songwriting tips to compose music and create songs. This...

By @CustomizedGPTs



DeepGame

Play any story as a character. You decide what to do next.

By Utile Labs



AutoExpert (Chat)

Tired of lightweight answers? I am the ideal GPT for the curious human that always wants to learn more. I'll impanel a dynamic...

By Dustin Miller



science-based answers, and

By consensus.app

Enhance your writing with tools f

Writing

Write For Me Write tailored, engagi focus on quality, rele

word count.

Al Humanizer Pro

Best Al humanizer to

human score, Humai

content to bypass Al

technology By Mr Sora

By Sora Video

Generator Text to Video Maker

The Assistant helps you create high-quality

video prompts by easily utilizing InVideo

ChatPRD - Al for Product Managers

An on-demand Chief Product Officer that

drafts and improves your PRDs, while

Plagiarism Free Content | Title | Meta

Description I Headings with Proper H1-H6...

By bypassgpt.ai



Video Maker

By veed.io

voiceovers with this Video GPT!



4.2 ★ - Make engaging videos with

Video GPT by VEED



By invideo Al



Adobe Express

Stand out with Adobe Express. Quickly and easily make impactful social posts, images, videos, flyers, and more. Your use of Adob.





















Whimsica

12











Humanize Al Top 1 Al humanizer to help you get humanlike content. Humanize your Al-generated content for FREE.

By gptinf.com

CV Writer - the CV Expert

Expert in crafting personalised, professional and humanized CVs optimised for ATS (Applicant Tracking System) -...

By C elberg



Book Creator Guide

A writing assistant specializing in book creation, web research, and format recommendations.

coaching you to become an elite product... Fully SEO Optimized Article including Create a 100% SEO Optimized Article |

Security & privacy

OpenAl is committed to building trust in our organization and platform by protecting our customer and user data, models, and products.

Enterprise privacy

Consumer privacy

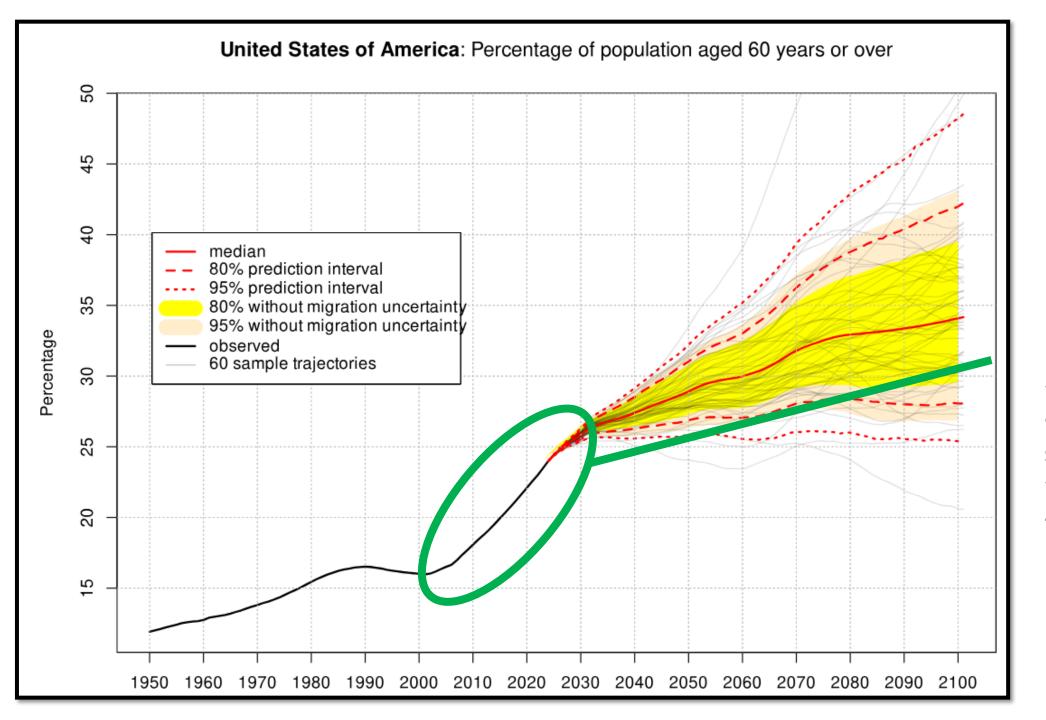
OpenAl invests in security as we believe it is foundational to our mission. We safeguard computing efforts that advance artificial general intelligence and continuously prepare for emerging security threats.

Major Takeaways

- Al is not a computer program.
- It is completely different than any other technological innovations that we have ever seen.
- Data could mean several different things.
- It is absolutely a tool that procurement should keep in mind!

What Does this Mean for Procurement?

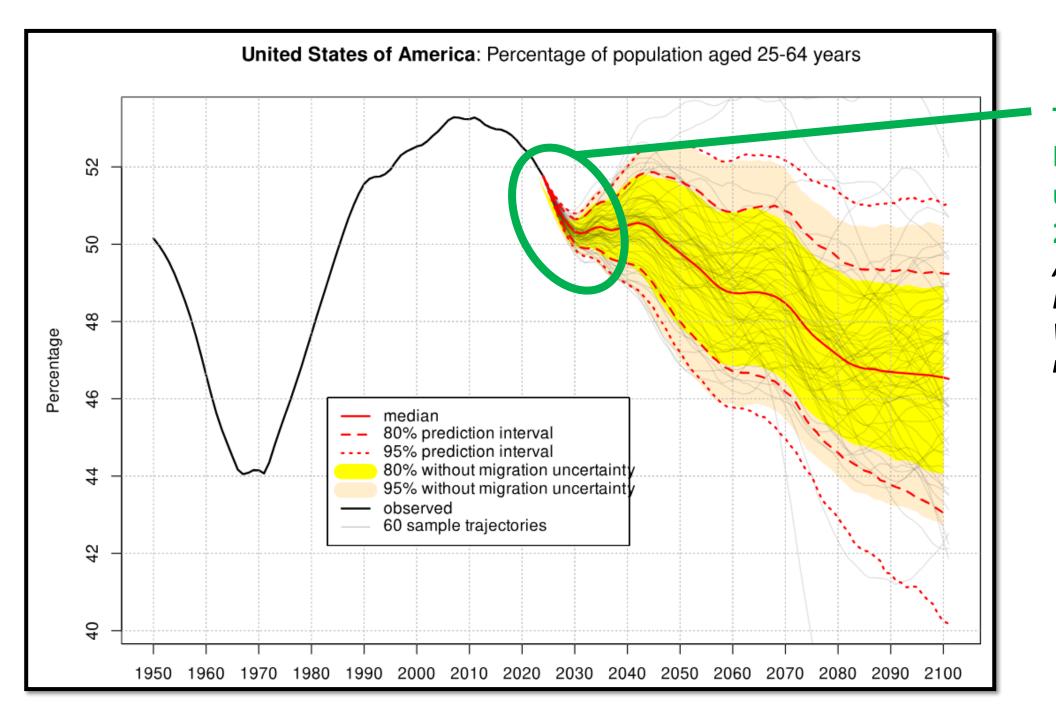




Near Exits

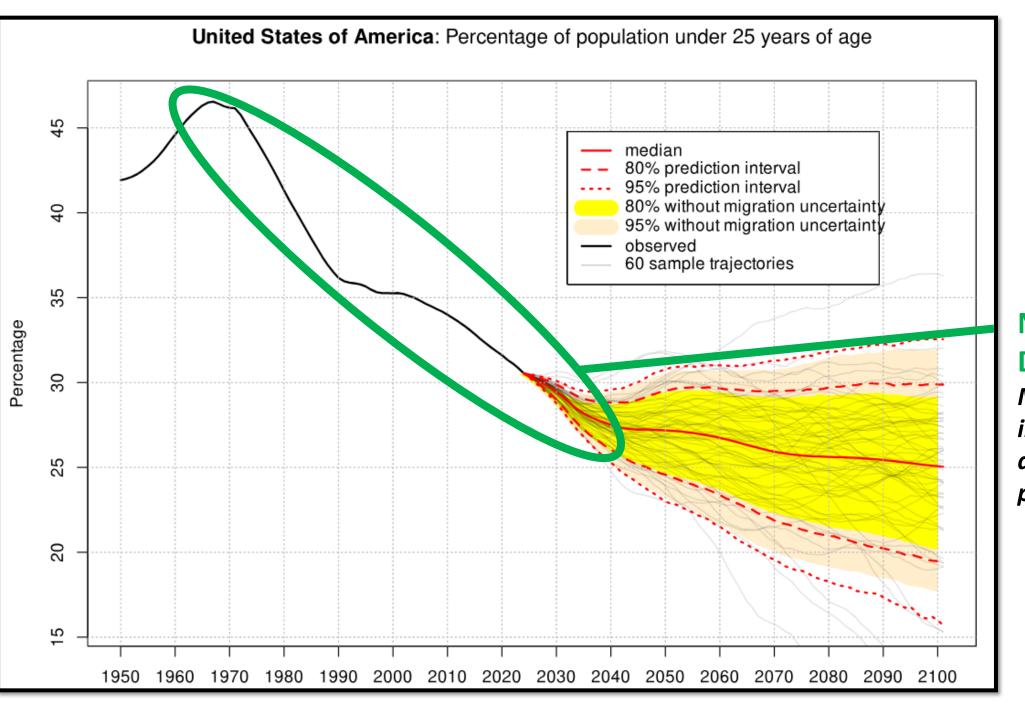
-60+ yr olds as a % of population has grown 50% -Doesn't level off to mid-2030s





Total Workforce
Keeps Shrinking
until Early
2030s
Additional 5%+
Drop in Total
Workforce over
next 7-10yrs

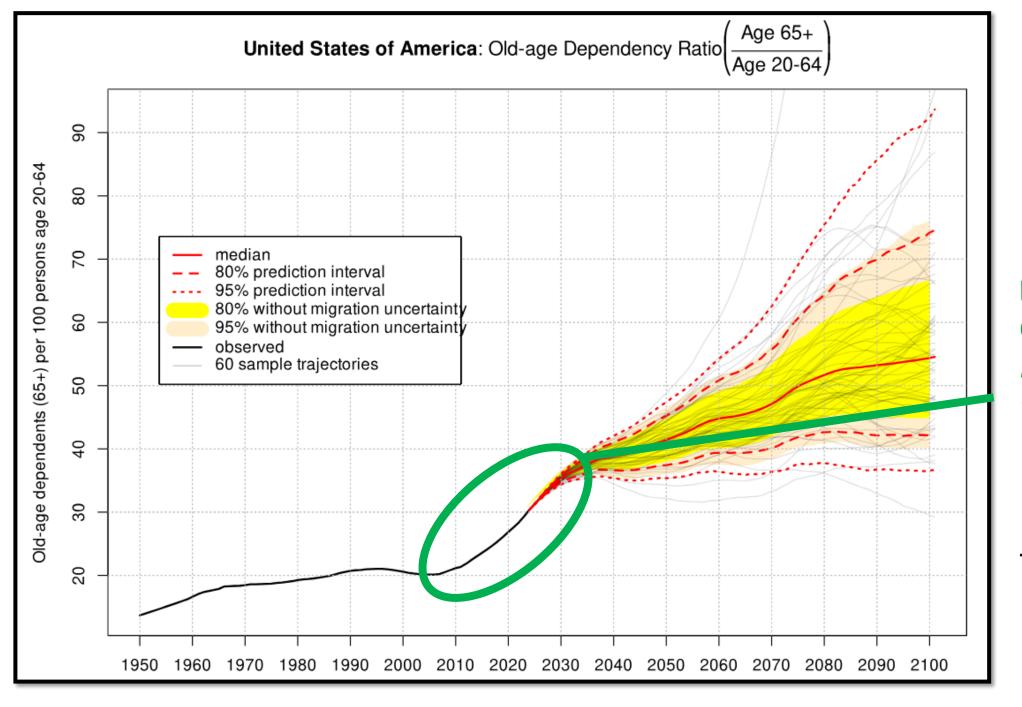




No More Senior Discounts

Massive decrease in future workforce as a % of population





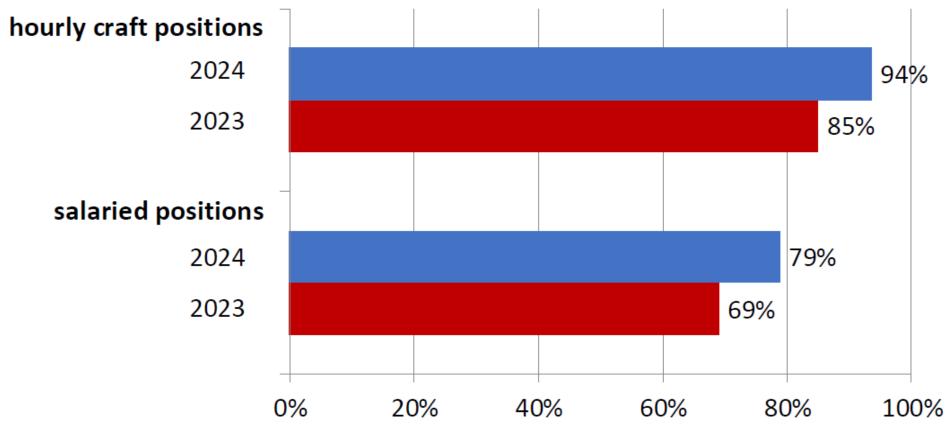
Employer Opportunity: Family Caretakers to Double

Currently about 1 out of 4 have an older family member they care for....this will double in next few years

Contractors are eager to hire

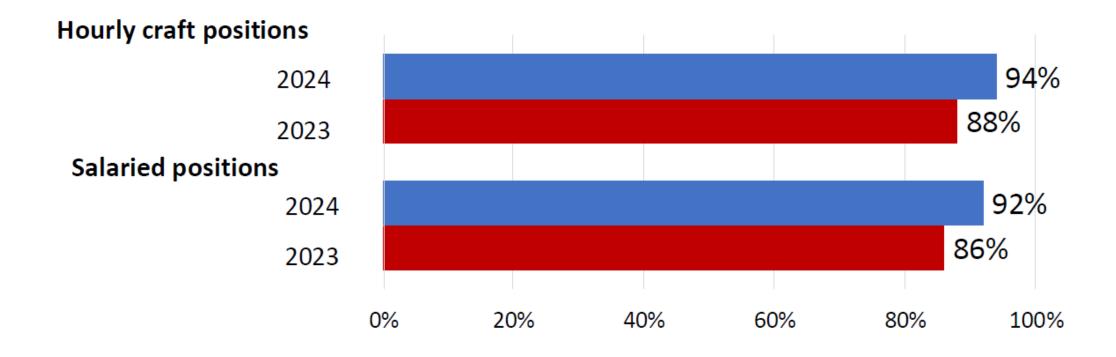


% of firms with openings for:



% of contractors with openings that report difficulty filling

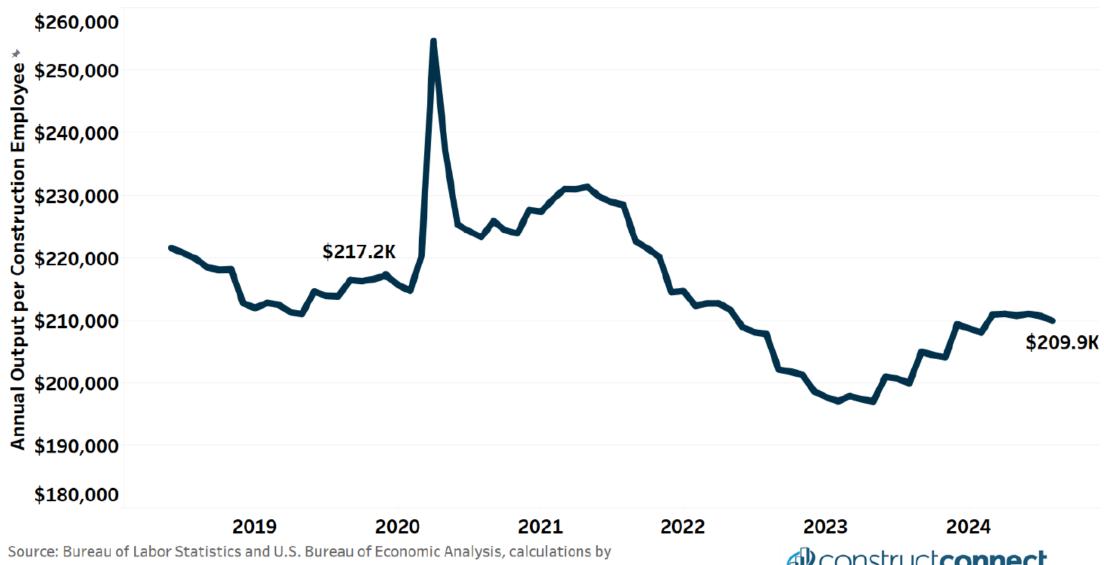






Output-Per-Worker Remains Below Pre-COVID Levels

Worker productivity fell by 15% in a 2-year period between 2021 and 2023



ConstructConnect

d construct connect.

Mid- and Long-Term Outlook

this is the

BEST

it will ever be

(for the remainder of our careers)





What does this mean for procurement?

There is an absolute need in the procurement industry to tackle this reality!

- Al can be a tool to assist you with demographic & workforce pressures currently facing the industry.
- Al can help you augment your productivity
 - Add more value in less time
 - Quickly do things that take procurement professionals a lot of manual time
 - e.g. developing scope, doing market research, gathering requirements...

Al will Change RFPs

CPE predicts Artificial Intelligence will fundamentally change the supplier/client relationship and make solid RFP processes more important than ever!





What does this mean for procurement?

- The main thing that will matter will be the people and the relationships
 - Who can give me the best people to perform this job?

 How can you proactively arrange your procurement processes and procedures to be ready for the eventual future?

And to accomplish that you will probably be adopting AI too!



Currently Two Paths

People say "AI" but really "two paths"

- Path 1: Generative + Assistance (Good to OK now)
 - ChatGPT, Gemini, Co-Pilot, plugins for current apps/software

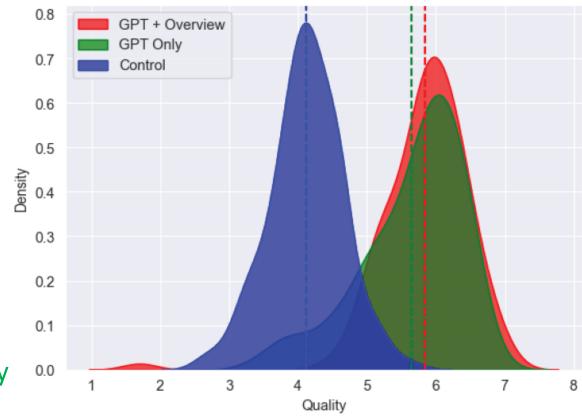
- Path 2: Al Enable Solutions (Wild West)
 - "Applications/Software"
 - 6000+ in past 12 months



A Piece of the Workforce Solution

- Generative AI is here <u>NOW</u>
- Recent Study of impact of GenAl
 - 12.2% More Tasks Completed
 - 25.1% Less Time per Task
 - 40% Higher Quality
 - Al Training Significantly Increase Efficacy
 - For control performance
 - ─ For those starting below average performance ─ AI improved performance 43%
 - For those starting above average performance Al improved performance 17%

Our study on students with AI enable tech was significant improvement – 10 to 30% performance impact (+ speed impact)





GenAl use cases in Sourcing & Procurement



Based on Deloitte experience and wholistic view of the Generative AI landscape, the areas highlighted below will be where Generative AI will be most impactful

	Strategic sourcing		Category management	Contract management		PR/PO management		Invoice and payments management	
	RFI/RFP/RFQ generation	Risk assessment Reports	Category strategy generation	Contract drafting	Contract renewal proposal drafts	Purchasing strategy	Purchase order approval routing	Invoice coding and approval	Payment mode analysis
					suggestions	Purchase	Payment terms analysis	Payment scheduling	
	Sourcing optimization suggestions	Bid evaluation Reports	Spend Analytics	Contract amendment drafts	Contract dispute resolution suggestions	Purchase requisition drafts	requisition-to- order conversion	Cash flow forecasting	Foreign exchang
	Supplier prequalification	Sourcing event feedback analysis	Supplier negotiation strategy/	Contract summary	Contract termination	Purchase order drafts	Purchase order amendment	Early payment opportunities analysis	Fraud detection reports
	reports		scenarios	documents	notices		drafts	Payment prioritization	Duplicate invoice alerts
	Supplier comparison reports	Sourcing event communications	Supplier communication messages	Contract negotiation suggestions	Contract review/ redlining	Purchase requisition approval	Order fulfillment alerts	recommendations	alerts
								Payment status notifications	
				S	upply Chain Resilien	cy			

^{*}The expected impact of GAI is derived considering 2 factors: (i) Degree of automation and (ii) Incremental value addition vis-à-vis current solutions

Expected impact of GAI*













Unique Leadership Consideration

- Actions today vs tomorrow what is the timeline?
 - Generative (ChatGPT) NOW
 - Prepare Data that can be used for GOOD TRAINING NOW
 - Al Apps/Enabled requiring investment WAIT (18-36months)
- New Impacts Not experienced from other innovations
 - Structural impacts organizational (depts, functions), foundational (basics of construction process, contract, owner role, etc.)
 - Cultural & Mind Impacts changing work patterns (80%/20% losing the 80%)
 - Constant Change change adoption culture
 - Outperforming Humans new baseline for value and expectations



One Quick Thing About Al....

- In most all previous technologies and innovations junior (or younger) employees were very effective at teaching and helping the more experienced and senior employees learn and adopt the new technology
 - Largely due to willingness to try innovation that conflicts with traditional or standard practice (and not having invested as much time & expertise)
- For AI, this is being proven to NOT BE TRUE for AI. Juniors are not more capable than seniors at adopting AI
- Best Explanation (currently) = AI technology is so different that being younger is not as advantageous....

Summary

Al is not a computer program

Prep your data

Generative AI Tools Now

An early assortment of AI enable specific apps



Al Demonstration



Harnessing AI for Procurement Excellence: Preparing Your Team for the Future

Download Today's Slides & Resources





Click here to join the interest list!

AI Procurement Boot Camp Spring 2025

- Three interactive sessions:
 - 1. Using AI to Write Better Statements of Work
 - 2. Unlocking the Power of AI in Data Analytics for Procurement
 - 3. Creating a Custom-AI Tool for your Organization
- ▶ AI Tools for Procurement: Master AI technologies to enhance procurement practices.
- Boosted Productivity: Streamline meeting and email management to improve efficiency.
- Contract Analysis: Quickly analyze and evaluate purchasing contracts.

FREE Online Course! 10 PDH

Now: Jan 7, 14, 21, 28

2025 x 3 times (Jan, May, Aug)





Better RFPs = Better Projects

- Session #1 = Organizing a High-Performing RFP
- Session #2 = Effective Statements of Work (SOWs)
- Session #3 = Evaluation Best Practices & Vendor Debriefings
- Session #4 = RFP Administration

NASPO's Procurement U

▶ Log on to the Procurement U Learning Management System (LMS) to register, access the course and materials.

www.naspo.org/procurement-u/

- or Email Amy: amy@center4procurement.org
- Open to all (even non-members of NASPO)⁵²

Look for

NEWer Courses by CPE + NASPO

these courses on...

- The 1, 2, 3's of a Great Scoring Matrix (2025x2 = Feb, Oct)
- **Procurement**
- -Session #1: Creating an Evaluation Matrix [90min]
- -Session #2: Complexities of Real-World Scenarios [90min]

- Deep Dive on Effective Evaluations (2025 x2 = Mar, Oct)
 - -Session #1: Planning Your Evaluation Strategy [90min]
 - -Session #2: Training Your Evaluators [90min]
 - -Session #3: Strategies for the Negotiation Phase [90min]

Free Webinar Series!

3rd Thursdays monthly @ 12pm Central

15min Teaching Moment

(learn a new tip, trick, or tool)

20min Virtual Peer Group

(network with other procurement professionals)

5min Announcements & Opportunities

(upcoming courses & other ways to get involved)

Office Hours

(open Q&A until the questions run out!)





Invite your Friends!

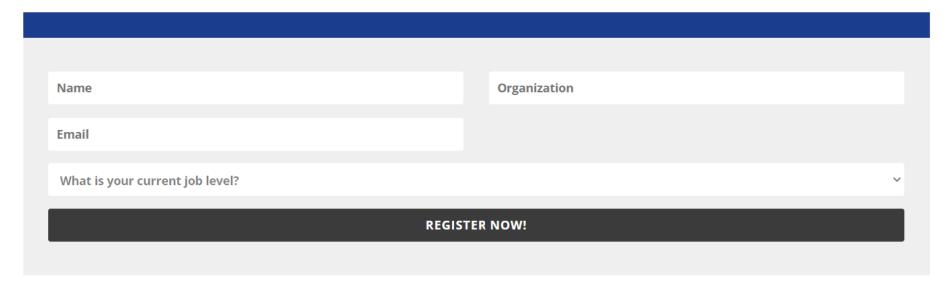


center4procurement.org/rfp-doctor

Home About CPE v Events v Ask the RFP Doctor v Certification v Templates, Guides & Tools Membership v Contact

Register For Ask The RFP Doctor Event

We will send you your personal admission credentials via email.



RFP Doctor Sign-up (FREE)



Previous Recordings Available Online!



































center4procurement.org

NEW RESOURCE - CEU Hours!!!

CPE is pleased to announce that all attendees @ live
"Ask the RFP Doctor"
events will receive 1 hr
Continuing Education Unit
(CEU)!



Human Dimensions Assessment

- FREE Personality, Emotional Intelligence, and Behavioral Diagnostics assessment.
- Individualized reports created for each respondent!
- Report provides a detailed insight into an individual's personality type and how it compares with organization & overall industry.
- Information about how the individual compares against the best-in-class in the industry is provided.

rebecca.kassa@simplar.com





Thank You!

rebecca.kassa@simplar.com

