



# Artificial Intelligence and the Future of Data Professionals

*Adapting, Thriving, and Leading*



NIGERIAN SOCIETY OF DATA  
ANALYSTS AND BUSINESS  
INTELLIGENCE EXPERTS

Powering Innovation and Impact Through Data



University of  
Roehampton  
London

**1<sup>st</sup> NSDABIE International conference**

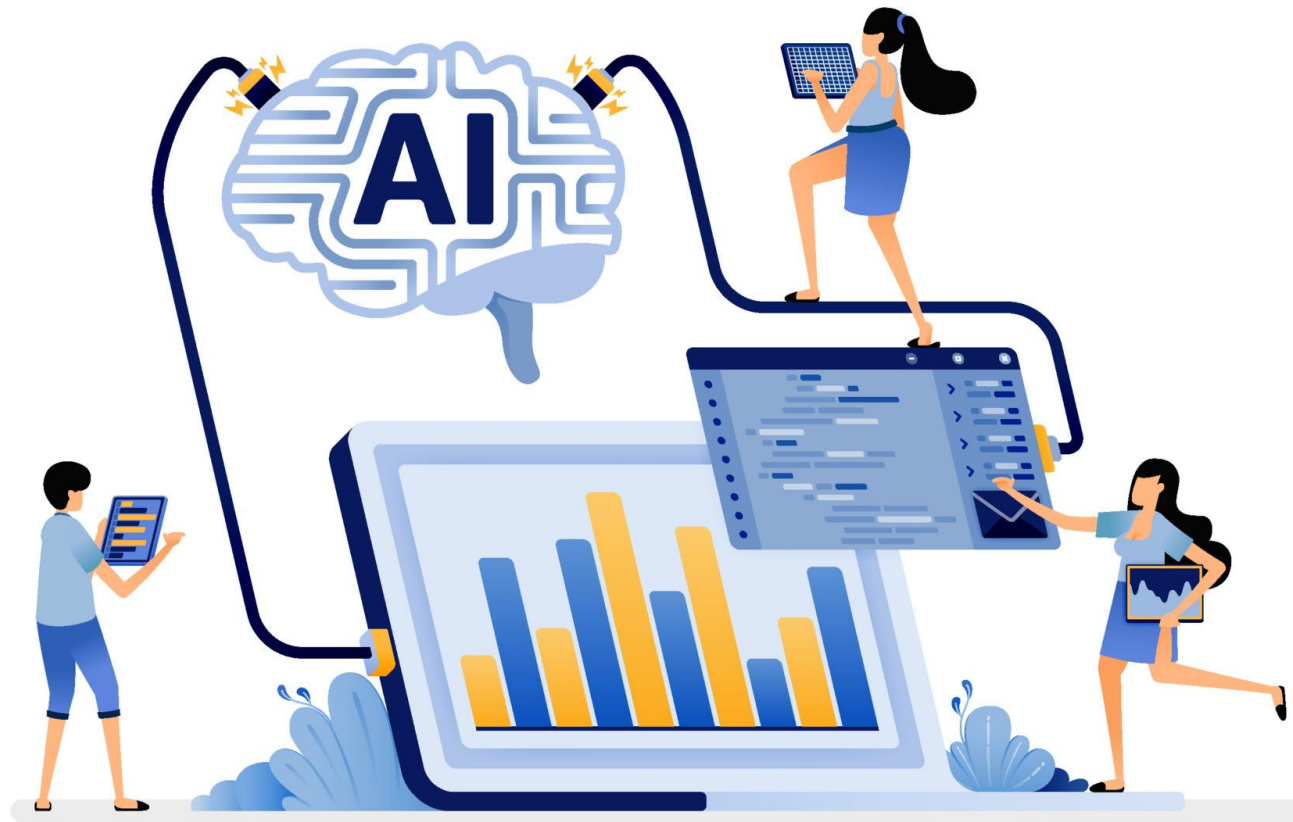
27-29 December 2025

Dr. Kashif Talpur  
School of Computing, Engineering,  
and the Built Environment  
University of Roehampton London,  
United Kingdom

# *The elephant is in the room!*



# What AI actually automates right now?



Booking Trends and patternsConfidentialMicrosoft Extended

Search

FileExportShareExploreSubscribeSet alertEdit

Booking Status Analysis

short nameAllbooking status codeAll

number of bookings15

Count of booking status code2

Count of apartment type code3

Average of apartment booking id554.73

Count of apartment booking id by gender code

Gender	Count	Percentage
Female	9	60%
Unknown	5	33.33%
Male	1	6.67%

Count of apartment booking id by building short name and apartment type code

Building Short Name	Apartment Type Code	Count
Duplex Colum...		5
Flat Merced...		3
Duplex Barclay ...		1
Duplex Biltmore Plaza		1
Studio		1
Flat Stuyvesant Town		1
Studio The Eug...		1
Studio Windso...		1
Flat		1

Count of apartment booking id by building address

Map showing locations in Indiana, Ohio, West Virginia, Maryland, Delaware, Kentucky, Virginia, Tennessee, North Carolina, and South Carolina.

guest first nameguest last nameCount of apartment b

Rebeca	Runolfsdottir	
Keon	Treutel	
Lou	Grady	
Else	Roberts	
Gabe	Bode	
Juvenal	Kautzer	
Keith	Hoeger	
Louvenia	Crona	
Marcell	Toussaint	
Total		

Average of apartment booking id by apartment type code and booking start date

Booking Start Date	Apartment Type	Average Booking ID
7/3/20...	Flat	950
4/7/20...	D...	900
9/28/2...	F...	850
4/17/2...	Duplex	600
6/7/20...	S...	550
3/4/20...	F...	550
5/13/2...	D...	500
11/26/...	Studio	450
7/25/2...	D...	400
5/24/2...	F...	350
2/11/2...	D...	300
8/4/20...	F...	250
3/13/2...	Duplex	200
4/1/20...		150
9/26/2...		100

Copilot

Uncover insights with the help of AI.

Recommended

What is this report page about?

Prep a summary for my team

Tell me what Copilot can do

Understand the data

Dig deeper

Write a summary

Ask a question about this report

Copilot uses AI. Always review content for mistakes. Learn more



## Sales Cloud Dashboard

### Executive Summary

Executive Summary

Pipeline Analysis

Performance Trend

Account Name

All

Account Type

All

Primary Industry

All

Opportunity Type

All

Opportunity

All

#### Pipeline Generation

All

127.8M

+137,494.4% (+127.7M) vs. prior period



#### Opportunity Owner Performance (last 18 months)



#### Open Opportunities

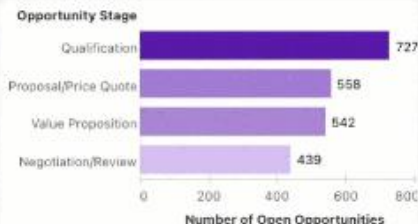
All

2.3K

+2.3K vs. prior period



#### # Open Opportunities by Stage



#### Weighted Pipeline Value

All

32.7M



#### Weighted Pipeline Value by Account Type



#### Total Sales

All

40.9M

#### Win Rate

All

32.30%

-87.7% (-87.7 pp) vs. prior period

#### Conversion Rate

All

64.44%

-35.6% (-35.6 pp) vs. prior period

#### Weighted Pipeline Value by Opportunity Type and Days to Close

### Analytics Agent

1 2 3

> Sources (2)



why is sales suite lower than the rest?



Here's why Sales Suite sales are lower than the rest. Anything else you'd like to know?

- **Sales Suite** has experienced a significant decrease in total sales, dropping by **\$805.2K**, which is a **99.6%** decrease compared to the previous period. This highlights a negative trend in its performance this quarter. Additionally, on April 1, 2025, the total sales were recorded at **3.1K**, an unusually low figure.
- Further analysis reveals that specific products within the Sales Suite, such as the **Sales Enterprise Edition**, **Data Management Enterprise Edition**, and **Automation Professional Edition**, had the largest drops, contributing significantly to its overall performance decline.

> Sources (3)



what is the best open opportunity?



I need a bit more information to determine what you mean by "best" in the context of open opportunities. Are you referring to the highest potential revenue, highest probability of closing, or another metric? Let me know so I can provide a detailed analysis.



Describe your task or ask a question...


**Power BI** CopilotTesting

File View Reading view Mobile layout Open data model

Copilot

Build visuals with your data

Select or drag fields from the **Data** pane onto the report canvas.



**Copilot**

What can Copilot help you with today?

- Create a new report page
- Suggest content for a new report page
- Answer a question about the data

Describe the report you want to create or ask a question

Copilot uses AI. Always review content for mistakes. [Learn more](#)

**New Business** File Edit View Insert Format Data Tools Extensions Help

100% \$ % .0+ .00 123 Default... - 10 + :

Rank	City	State	Average Rent per Square Foot per Year	Population	Median Age	Median Household Income	Number of Coffee Shops
1	New York City	NY	\$75	8,804,190	38.7	\$67,705	2,059
2	Los Angeles	CA	\$60	3,990,456	38.9	\$60,569	1,589
3	Chicago	IL	\$40	2,746,388	36.8	\$65,760	1,151
4	Houston	TX	\$35	2,304,580	35.3	\$62,017	1,040
5	Philadelphia	PA	\$30	1,608,160	36.3	\$61,285	875
6	San Antonio	TX	\$25	1,547,299	34.9	\$57,364	849
7	Phoenix	AZ	\$20	1,660,272	37.2	\$64,741	850

**Gemini**

Summarize the info here in Sheet 1

Sheet1 provides a ranking of the top 10 cities in the U.S., considering factors like average rent, population, median age, income, and number of coffee shops. Notably, New York City has the most coffee shops, while San Jose has the highest cost of living. The table also includes notes on distinguishing features of each city, like Los Angeles being home to well-known coffee chains and Chicago having a diverse population.

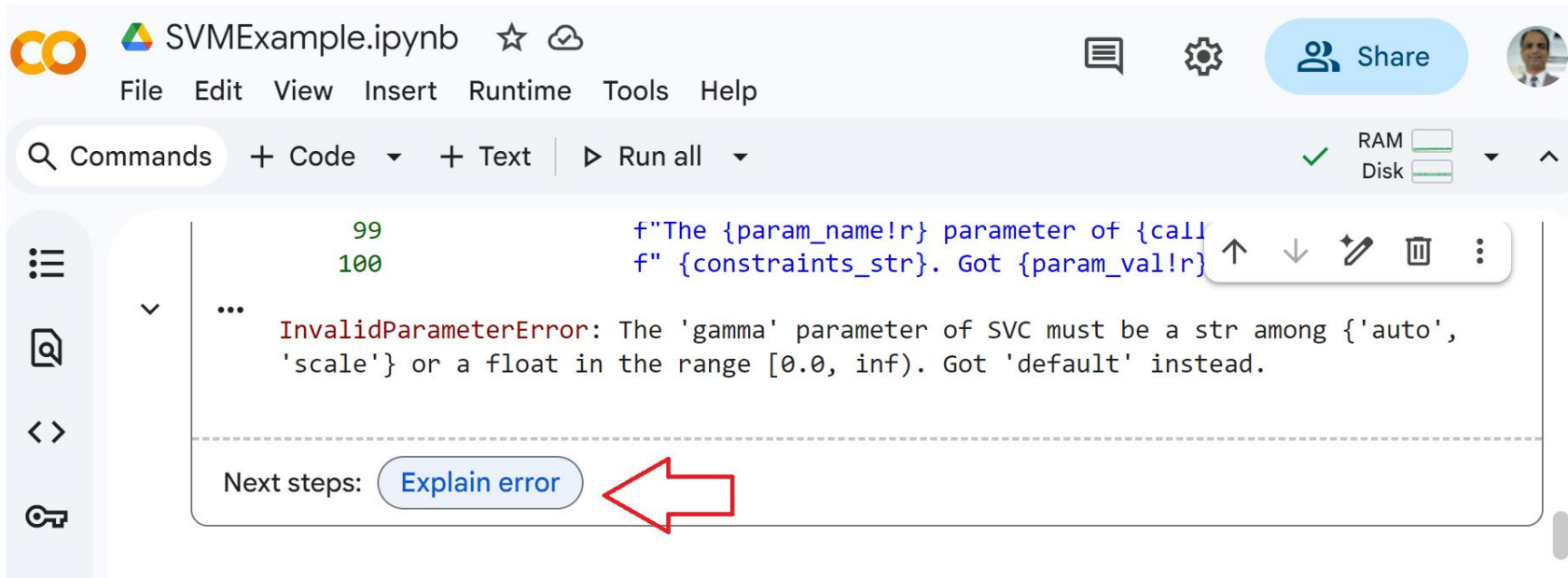
Sources (1)

Create a formula that calculates the number of cities per state.

Show more suggestions

Enter a prompt here

Gemini for Workspace can make mistakes, including about people, so double-check it. [Learn more](#)



CO SVMExample.ipynb ☆ ☁

File Edit View Insert Runtime Tools Help

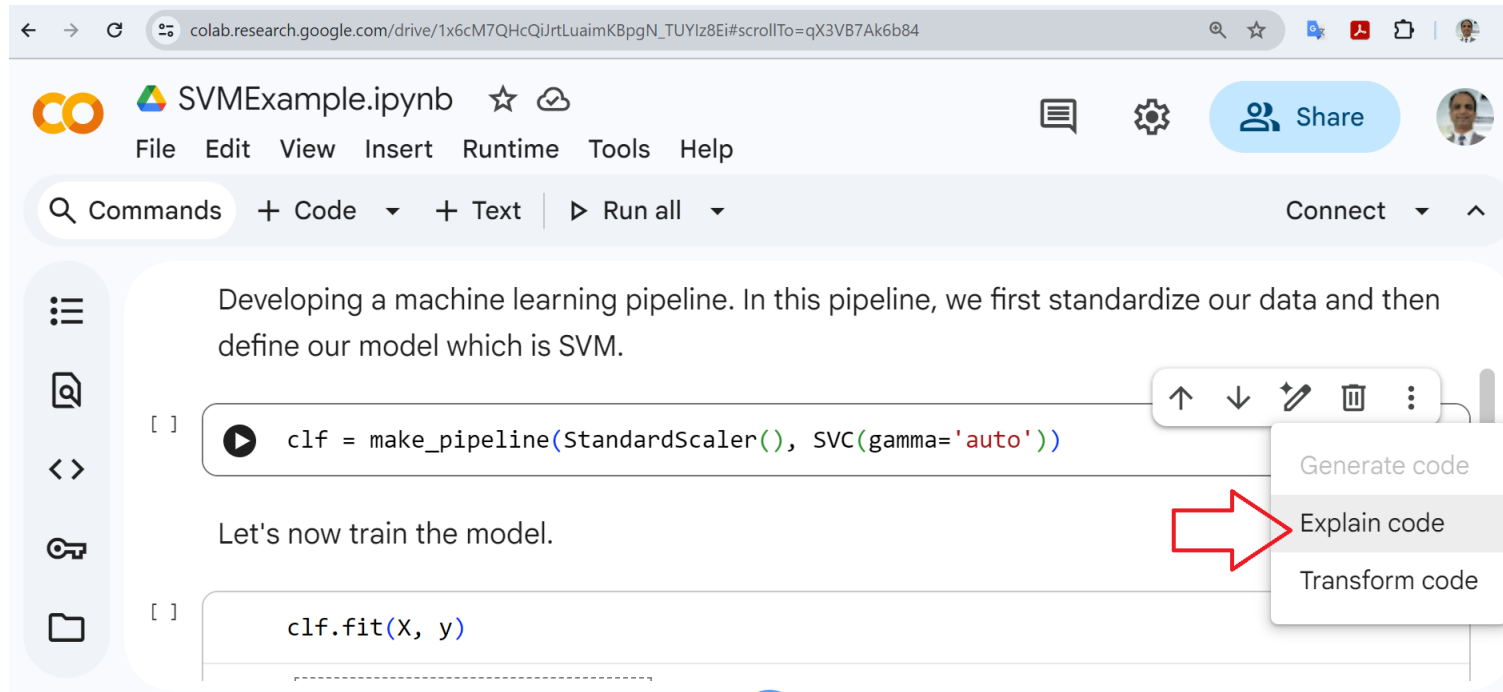
Q Commands + Code + Text ▶ Run all

RAM Disk

```
99 f"The {param_name!r} parameter of {call  
100 f" {constraints_str}. Got {param_val!r}"
```

InvalidParameterError: The 'gamma' parameter of SVC must be a str among {'auto', 'scale'} or a float in the range [0.0, inf). Got 'default' instead.

Next steps: [Explain error](#)



colab.research.google.com/drive/1x6cM7QHcQjrtLuaimKBpgN\_TUYIz8Ei#scrollTo=qX3VB7Ak6b84

CO SVMExample.ipynb ☆ ☁

File Edit View Insert Runtime Tools Help

Q Commands + Code + Text ▶ Run all

Connect

Developing a machine learning pipeline. In this pipeline, we first standardize our data and then define our model which is SVM.

```
[ ] clf = make_pipeline(StandardScaler(), SVC(gamma='auto'))
```

Let's now train the model.

```
[ ] clf.fit(X, y)
```

Generate code  
Explain code  
Transform code

# Top AI Tools

## General-Purpose AI Assistants



## Data & Analytics AI



## Automation & AI Agent Platforms



BigQuery ML



GitHub  
Copilot

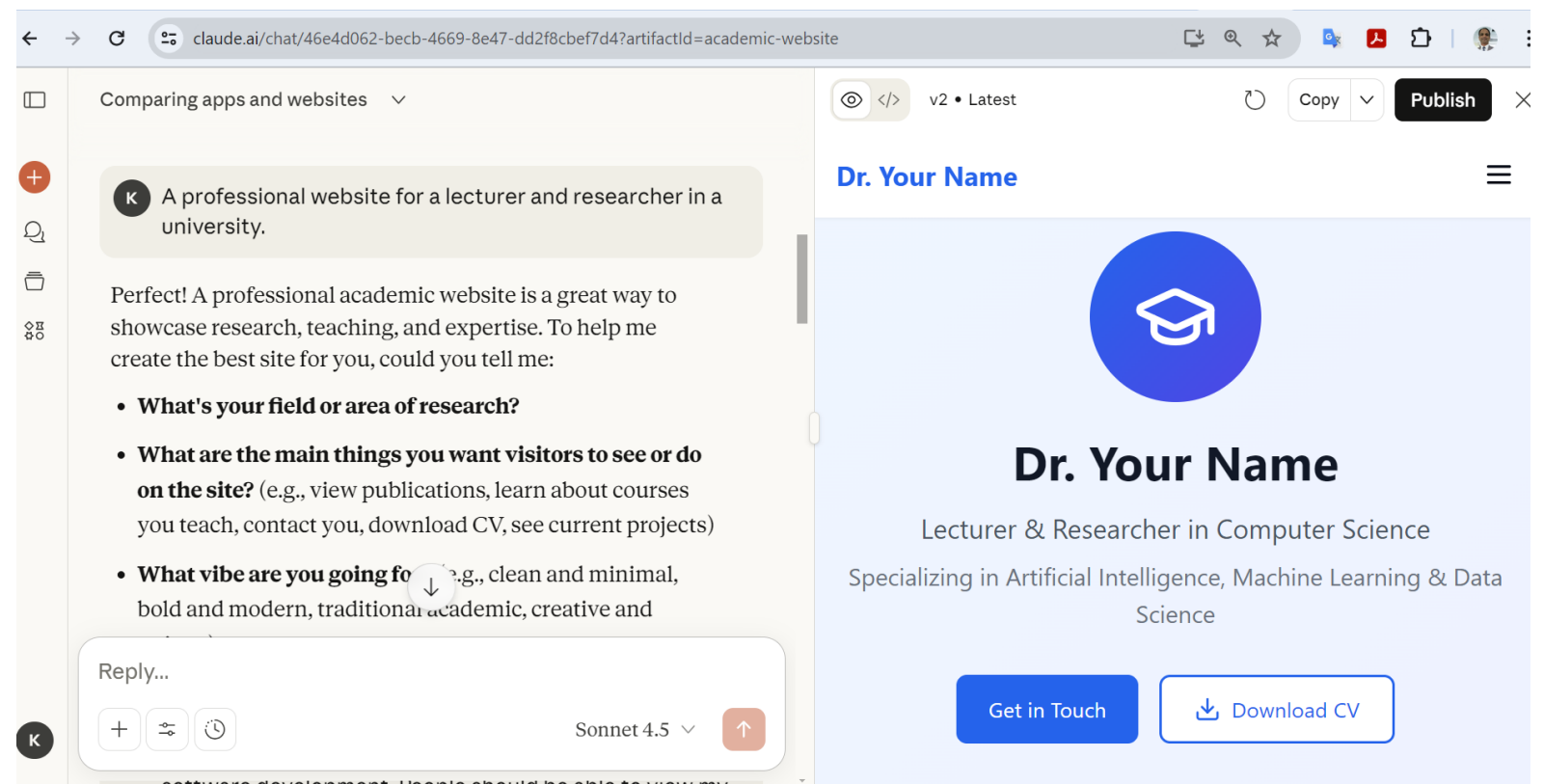
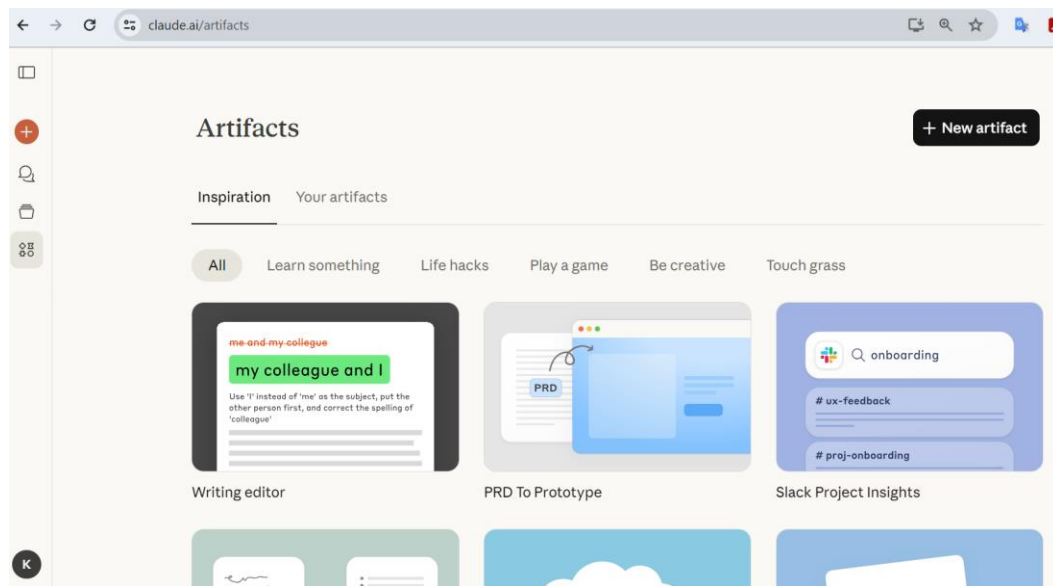


LangChain



## Domain-Specific AI Tools







# Activity 1

Sales report analysis using  
ChatGPT

# Activity 2

Generating SQL queries using  
ChatGPT



# Business Value

- Improved decision-making through predictive insights
- Continuous learning for deeper insights
- Discovery of hidden opportunities
- Greater accessibility for business users
- Enhanced customer and operational intelligence





What  
reports find  
worldwide

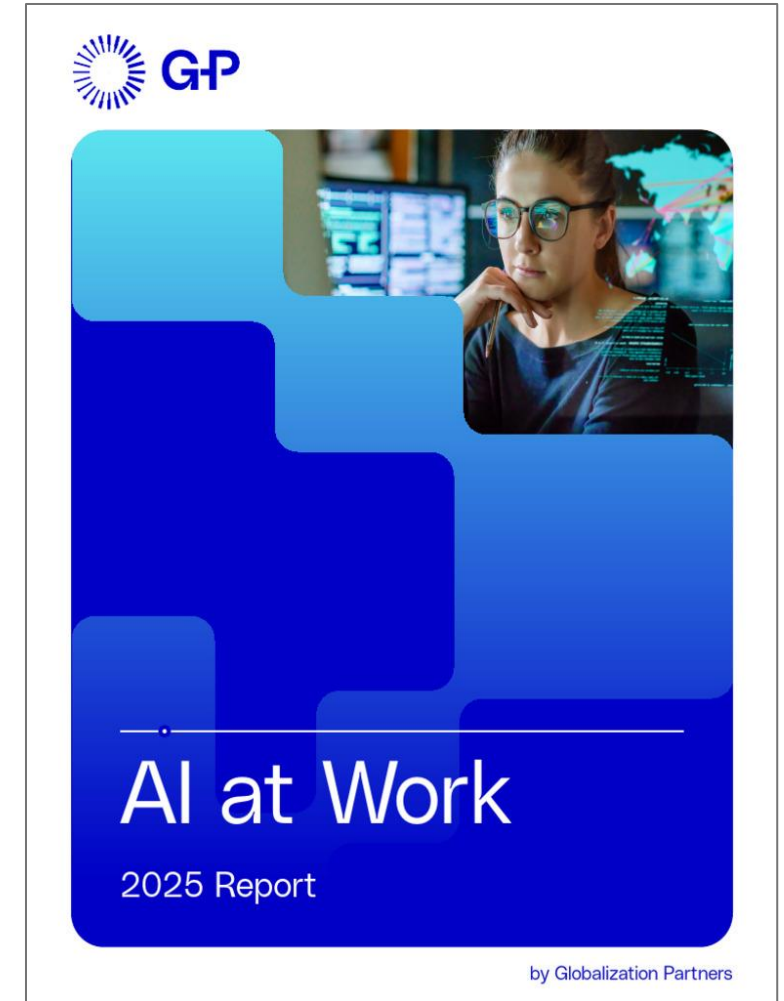
# AI at Work: 2025 Report

## AI Adoption:

- **74%** of executives view **AI as critical** to their company's success, with **60% actively using AI** to innovate.
- **82%** of **U.S. HR professionals** believe **AI is essential** for their company's success.
- **91%** are **scaling up** their AI initiatives.

## Trust on AI:

- **95%** of executives believe **AI tools** are more **effective** than **traditional search engines**
- Concerns over **data quality, bias, regulatory compliance**



# AI at Work: 2025 Report

## Monitoring and Governance:

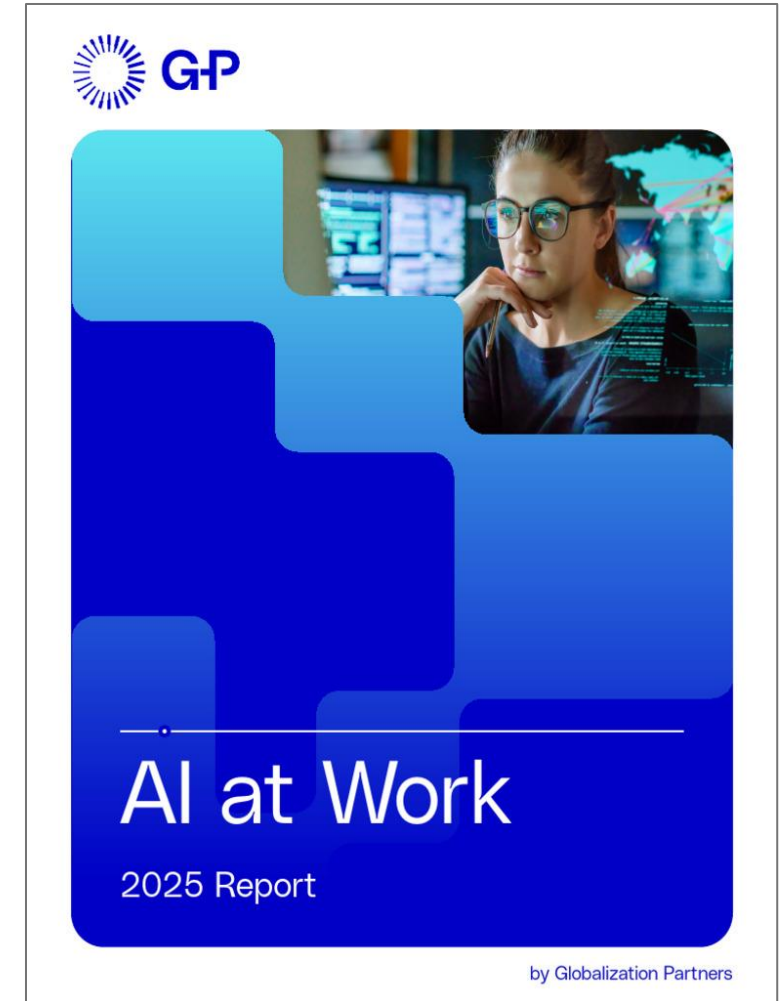
- **92%** of organizations **require approval** to implement new AI products, but **35%** of **leaders** used **unauthorized tools for productivity**.
- **77%** of executives **have formal AI training programs**, but **unauthorized AI tool usage persists**, raising **security** and **compliance concerns**.

## AI's Productivity Potential:

- **67%** of executives prefer using **AI to boost productivity**

## Generative AI and Future AI Tools:

- AI is expected to evolve into more **advanced tools**, including **AI agents** and **coworkers**, capable of solving complex human problems with limited oversight.



# Work Trend Index Annual Report 2025

## Intelligence on Tap:

- **82%** of leaders believe **2025 is a pivotal year** to **rethink strategies** and **operations**.
- **53%** of leaders say **productivity must increase**, but **80%** of the global workforce feels **they lack enough time or energy to meet business demands**.
- **45%** of leaders **prioritise expanding team capacity** with **digital labour** in the **next 12–18 months**



# Work Trend Index Annual Report 2025

## Human-Agent Teams:

- **46%** of leaders are **using agents to fully automate workflows or processes.**
- **Employees use AI** for its unique capabilities, such as **24/7 availability (42%), speed and quality (30%),** and **creative ideas (28%)**

## Rise of the Agent Boss:

- Leaders expect their teams to **redesign business processes with AI (38%), build multi-agent systems (42%), train agents (41%),** and **manage them (36%)** within five years.



# Work Trend Index Annual Report 2025

## Frontier Firms:

- **71% of Frontier Firm leaders** say their **company is thriving**, compared to 39% globally.

## AI Skilling and Workforce Strategies:

- **47% of leaders prioritize upskilling employees** in AI, and **78%** are considering adding **AI-focused roles**.

## Organizational Transformation:

- **Scaling AI adoption** is an **organizational challenge** requiring **decisive action**, **broad implementation**, and **investment in reskilling**.



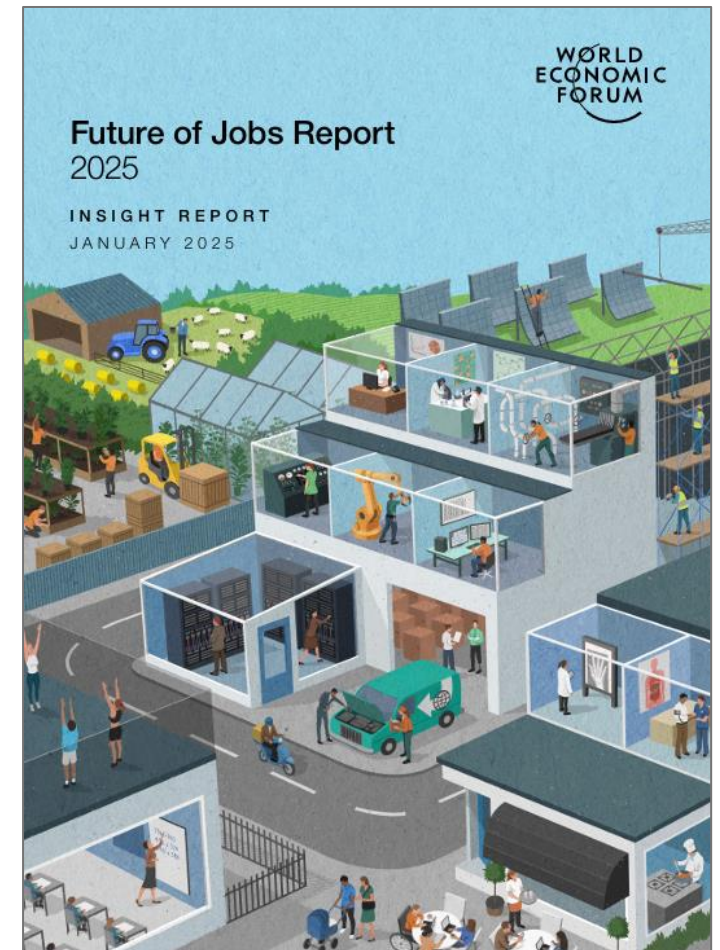
# The Future of Jobs Report 2025

## Technological Transformation:

- By 2030, **34%** of tasks globally are expected to be completed by a **combination of humans and technology**, with **33%** by **technology alone**.

## Job Market Outlook:

- **170 million** jobs created, **92 million** jobs lost, net growth **78 million** jobs globally.
- Roles such as AI and Machine Learning Specialists, Data Analysts, Business Intelligence Analysts, Sustainability Specialists, and Digital Transformation Specialists are **expected to see the highest net growth**.
- Roles like Administrative Assistants and Data Entry Clerks are **expected to decline**.



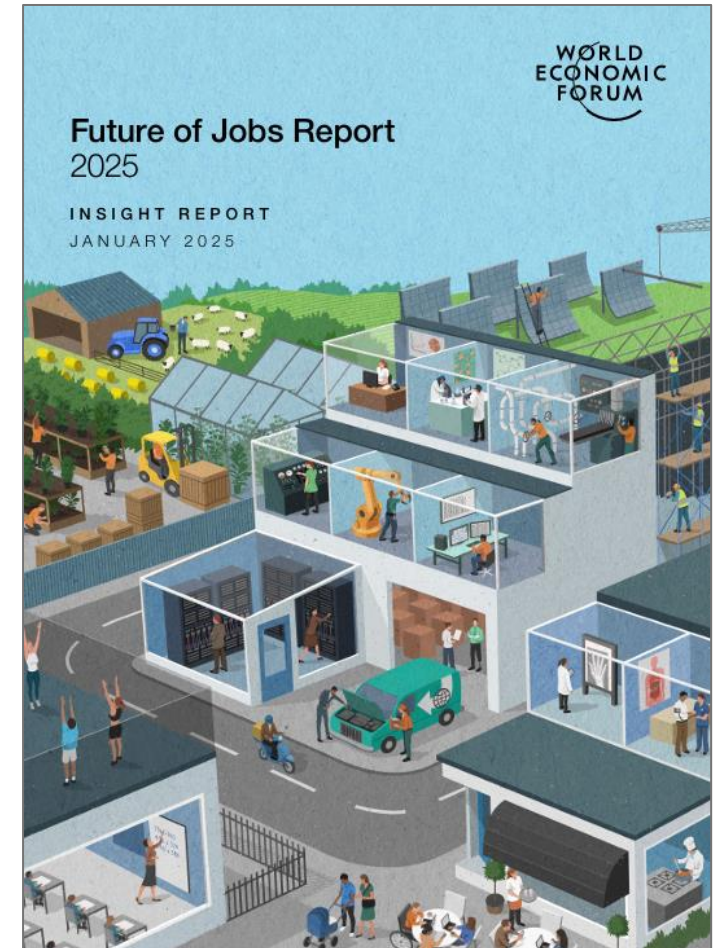
# The Future of Jobs Report 2025

## Skills Disruption:

- **Upskilling and reskilling are critical strategies**
- Employers plan to hire **staff with new skills**, transition staff from declining to growing roles, and **reduce staff with outdated skills**.

## AI Strategy:

- Employers are focusing on **reskilling and upskilling their workforce to work alongside AI**
- Employers are focusing on hiring **new talent to design AI tools**



# The Future of Work: Jobs and Skills in 2030

## Technological Growth and Expansion:

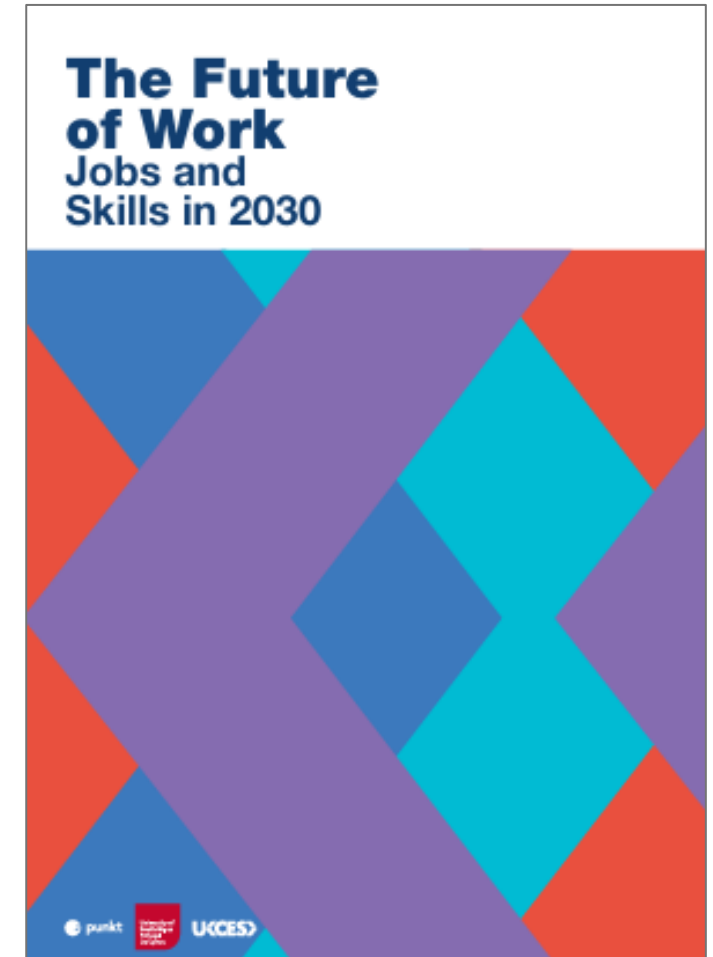
- **Digitalization** will significantly impact **employment and skills across all sectors**.
- **Continuous adaptation of skill sets** will be essential for successful participation in the labour market.

## Convergence of Innovation:

- **Innovations will increasingly occur at the intersection of disciplines and sectors**, driving the **hybridization of skills** and **cross-sectoral collaboration**.

## The Shrinking Middle:

- **Middle-skill jobs are declining** due to technology and global competition, leading to growing inequality.
- **New types of jobs may emerge**, but with different entry routes and skill requirements.



# So... what's happening?

- Here is what's really happening:

**“The entry-level tasks are being automated. The strategic work is expanding.”**

**“You are not becoming obsolete, you are being promoted. But only if you accept the promotion.”**

# The Automation Reality

What AI Automates	What Remains Human
SQL generation	Strategic thinking
Data cleaning	Business context
Basic reporting	Ethical judgment
Pattern recognition	Stakeholder communication
Anomaly detection	Problem framing

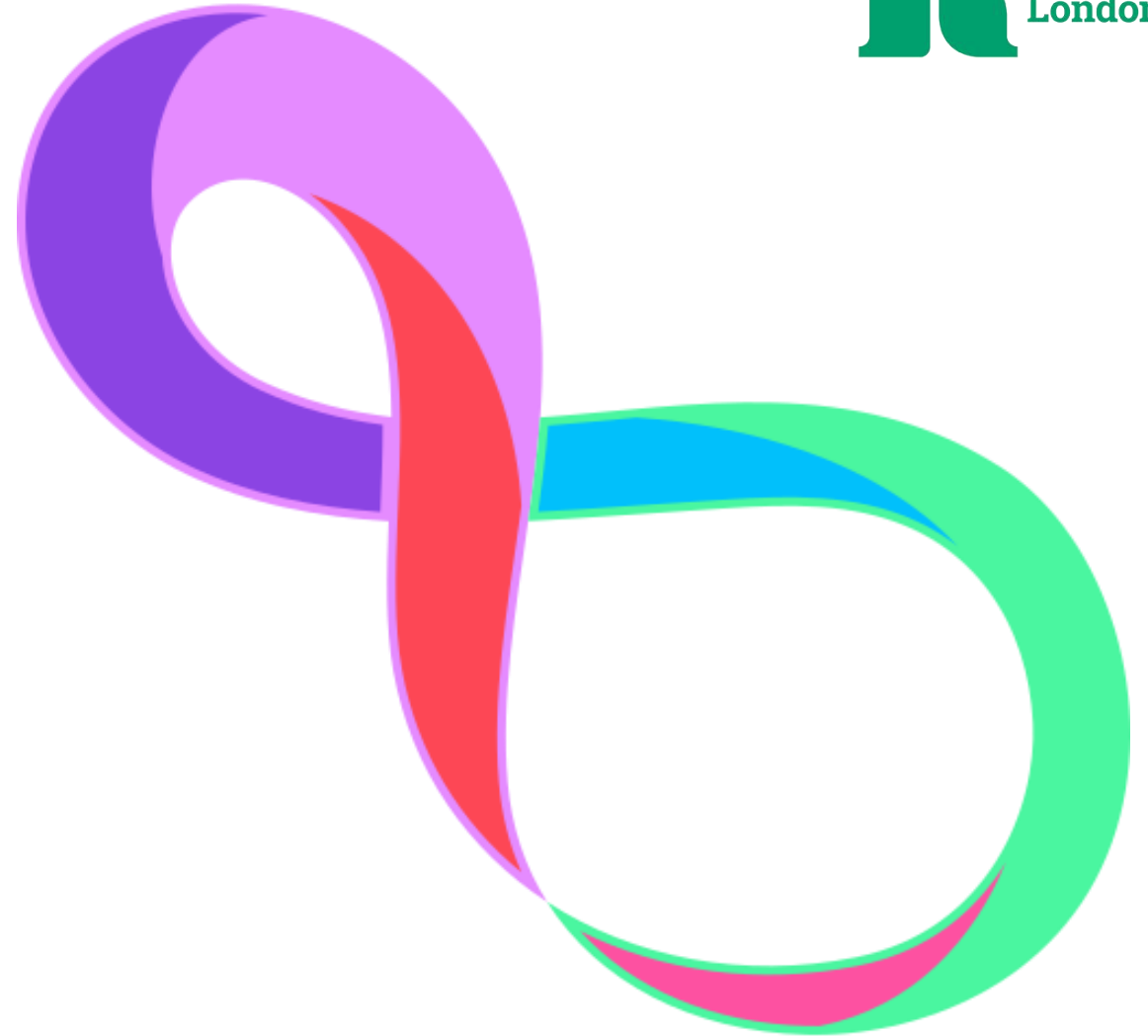


# The Paradox

Two statistics side by side:

- "97% of analysts now use AI daily"
- "Job demand projected +36% by 2033"

Caption: "Automation isn't elimination,  
it's elevation"



# Where AI Fails

Real quotes from the field:

- "AI cannot match humans for contextual explanation and deeper meaning" [Jessup University](#)
- "AI tools struggle with low quality datasets" [VIQU IT](#)
- "Biases require human oversight"



# Three-tier Model of AI Impact

- **Automated:** Routine queries, standard reports, data cleaning
- **Augmented:** Complex analysis, pattern recognition, predictive modeling
- **Amplified:** Strategy, governance, ethical oversight, business translation



# Practical Adaptation Strategies

## *Immediate actions:*

- Experiment deliberately: Use **AI tools for 20% of your work** this month
- Document what works: Build your **own "AI collaboration playbook"**
- **Shift mindset** from "doing analysis" to "designing analytical systems"

## *Skill development priorities:*

- Learn **prompt engineering for data tasks**
- **Understand ML fundamentals** (not necessarily building models, but evaluating them)
- Strengthen communication: **Your interpretive layer is irreplaceable**

## *Career positioning:*

- Become the "AI-augmented specialist" in your domain
- Build hybrid skills: data + industry knowledge + AI orchestration



# Anthropic CEO Warnings!

- Over 300k companies using “Claude” for range of jobs including coding, reasoning, summarisation, analysing complex data
- “Today’s AI will be smarter than most human in most or all ways”
- “Unknown threats are yet to discovered and dealt with”
- AI can half of all entry level white-collar jobs world-wide because AI models are much better in these jobs.
- **without guardrails, AI could be on dangerous path**
- **We still don’t know how AI makes decisions**





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