

Welcome

Pragmatic AI - Bridging Theory and Practice



WIPFLI | DIGITAL

Artificial Intelligence | Much More Than ChatGPT

AI - Artificial Intelligence

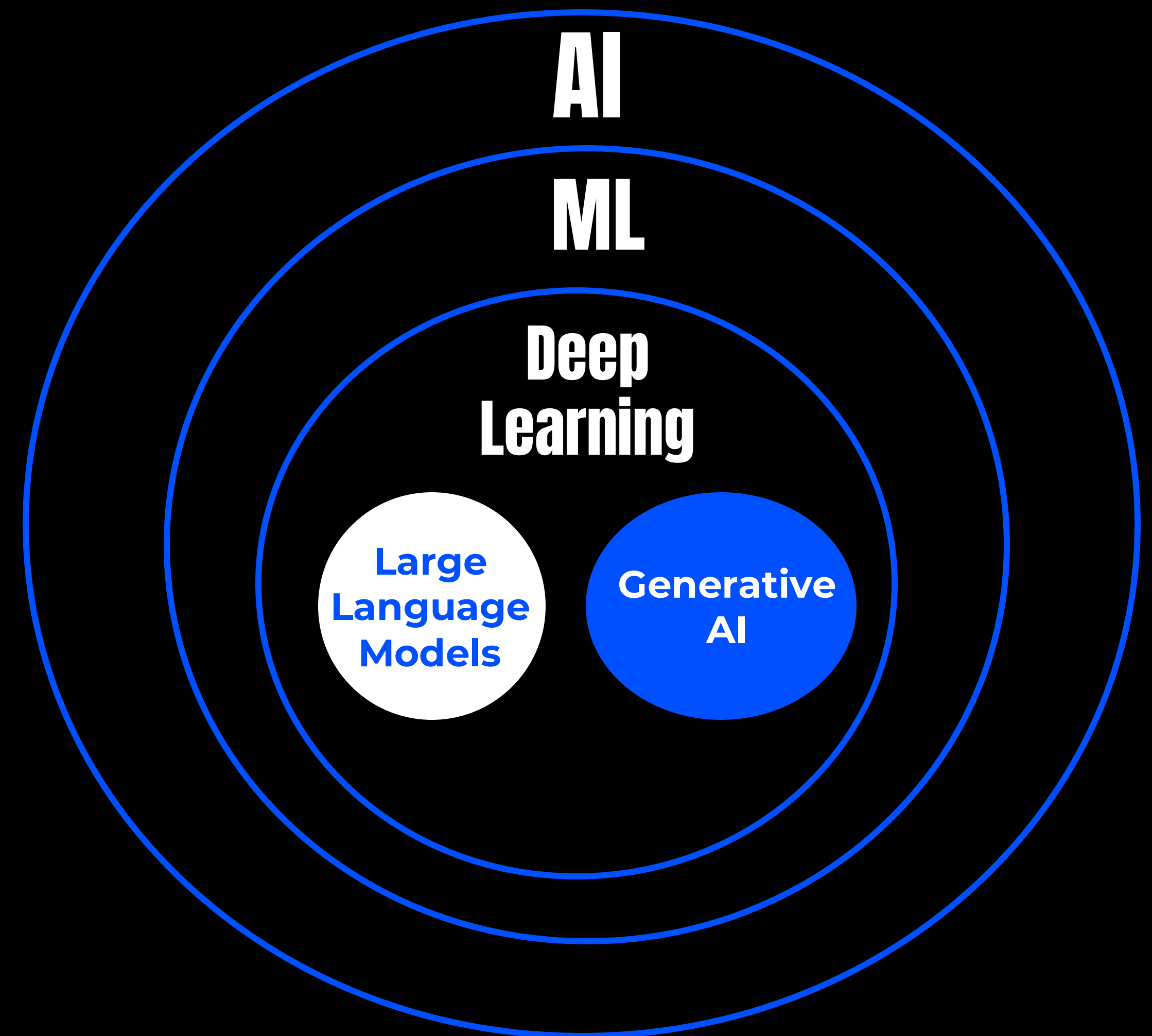
Systems that carry out tasks that typically require human intelligence

ML - Machine Learning

Systems that use algorithms to learn from data and recognize patterns without being explicitly programmed to perform the task

Deep Learning

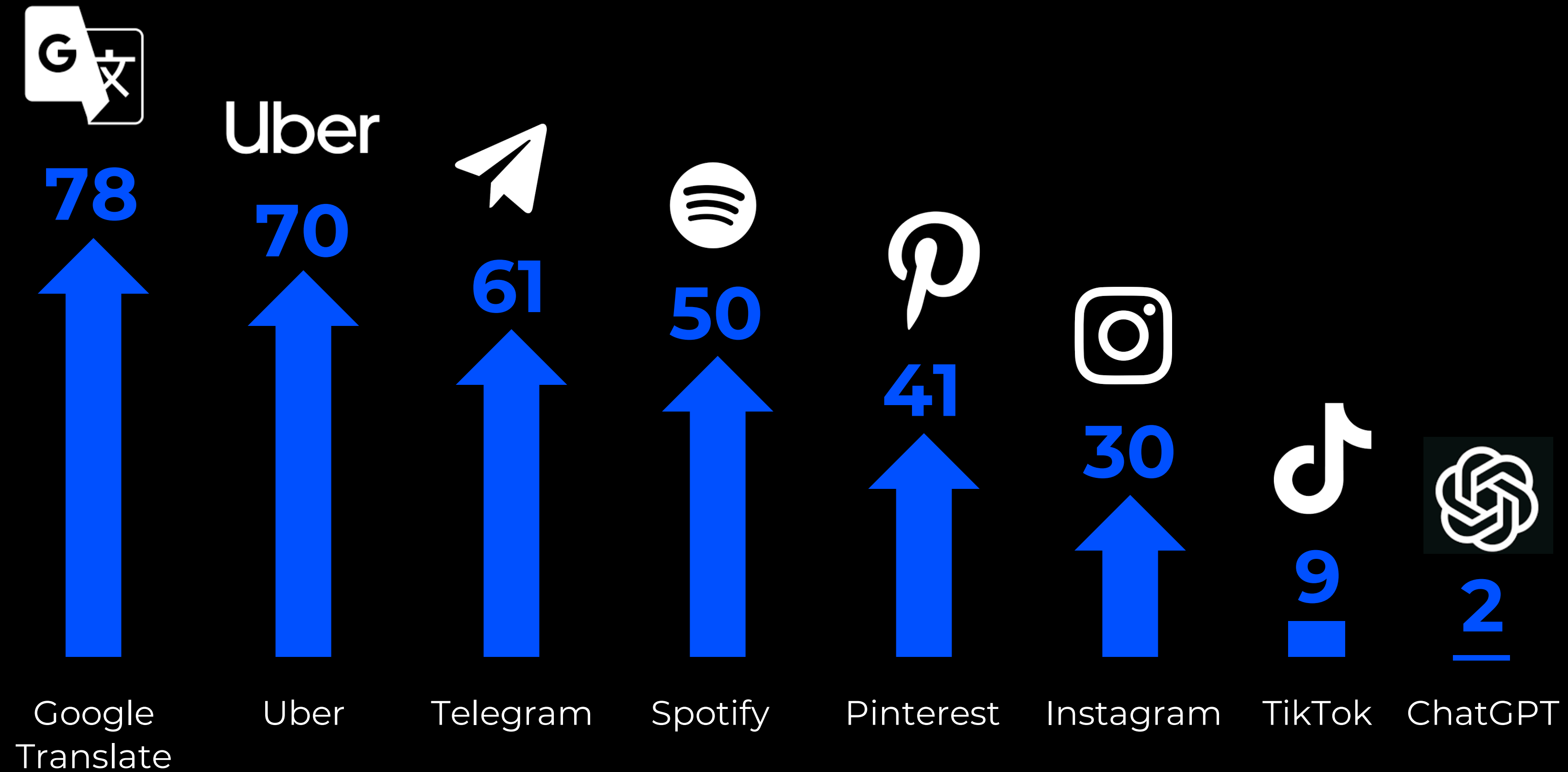
Systems that use neural networks to train on vast, complex data



“iPhone Moment”

Time to Reach 100M Users

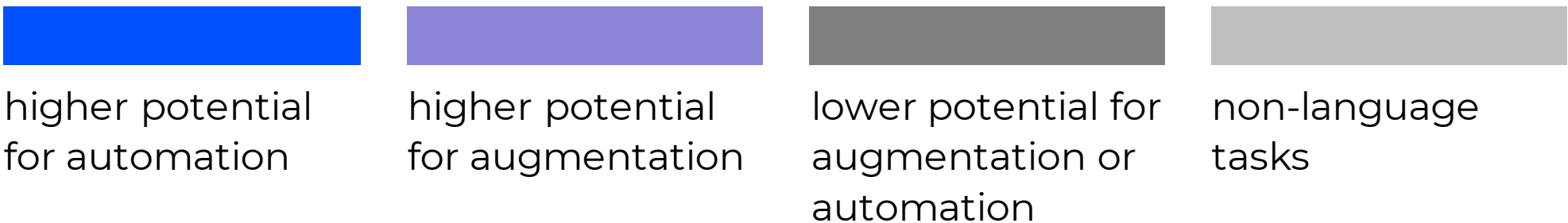
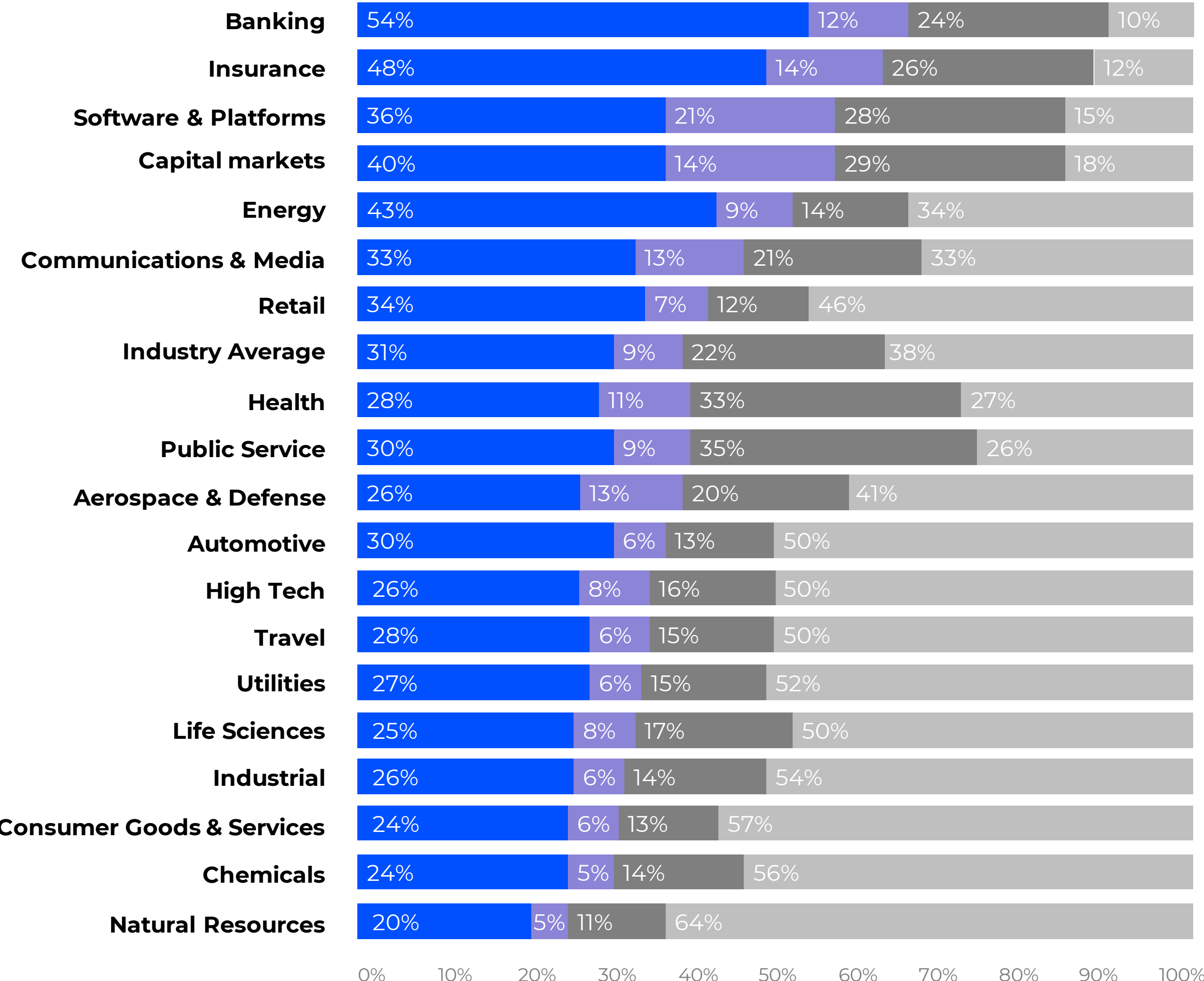
Months to get to 100 million global Monthly Active Users



Generative AI will transform work across industries

Work time distribution by industry and potential AI impact

Based on their employment levels in the US in 2021



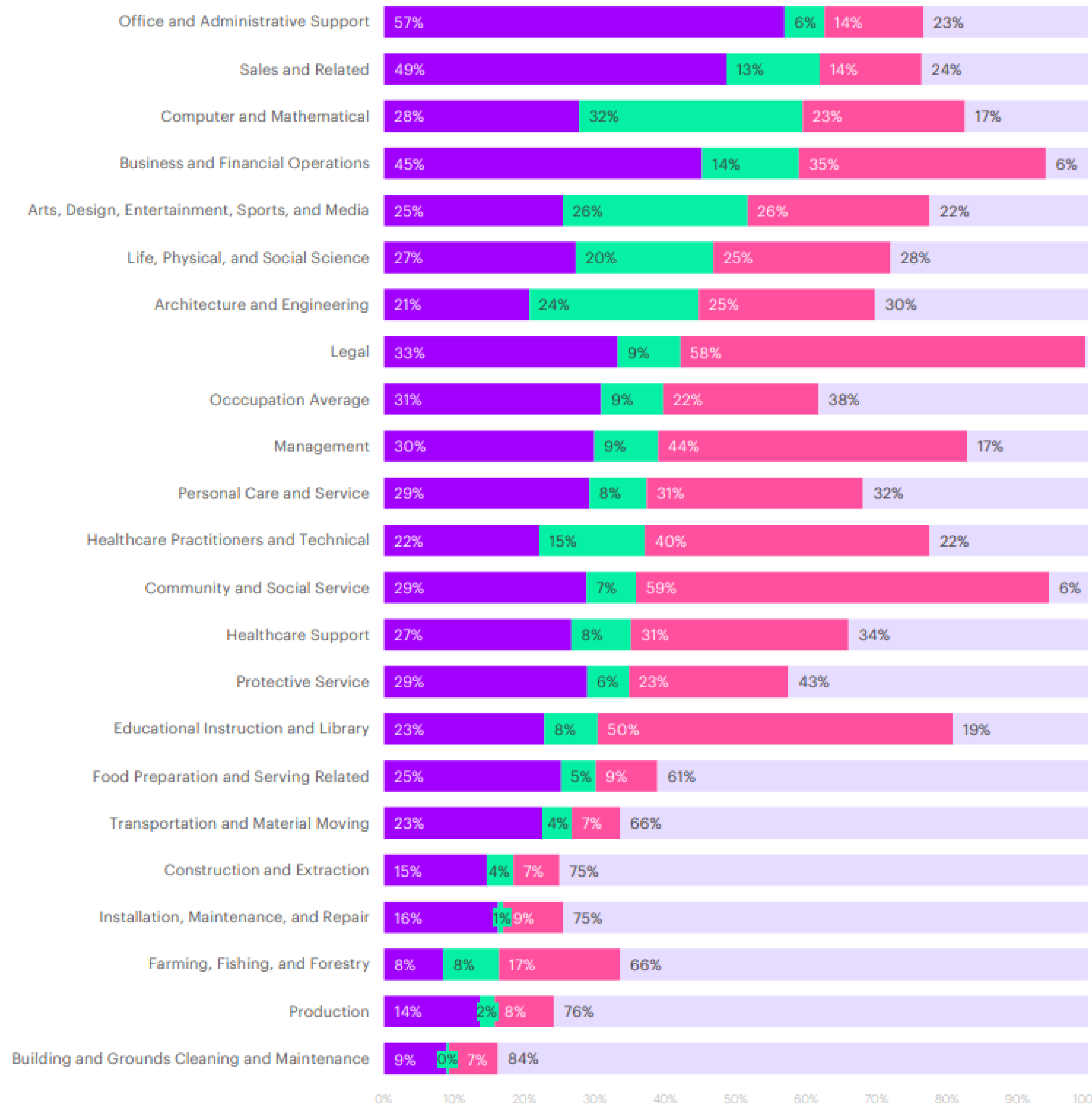
40% of working hours across industries can be impacted by Large Language Models (LLMs)

Why is this the case? Language tasks account for **62%** of total worked time in the US. Of the overall share of language tasks, **65%** have high potential to be automated or augmented by LLMs.

Source: Accenture Research based on analysis of Occupational Information Network (O*NET), US Dept. of Labor; US Bureau of Labor Statistics.

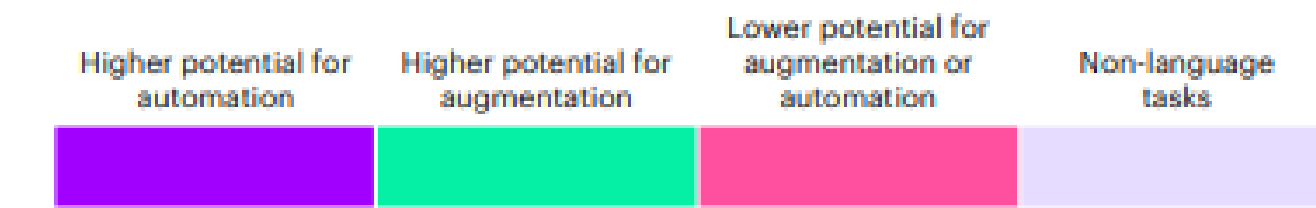
Notes: We manually identified 200 tasks related to language (out of 332 included in BLS), which were linked to industries using their share in each occupation and the occupations' employment level in each industry. Tasks with higher potential for automation can be transformed by LLMs with reduced involvement from a human worker. Tasks with higher potential for augmentation are those in which LLMs would need more involvement from human workers.

Figure 4: Generative AI will transform work across every job category



Work time distribution by major occupation and potential AI impact

Based on their employment levels in the US in 2021



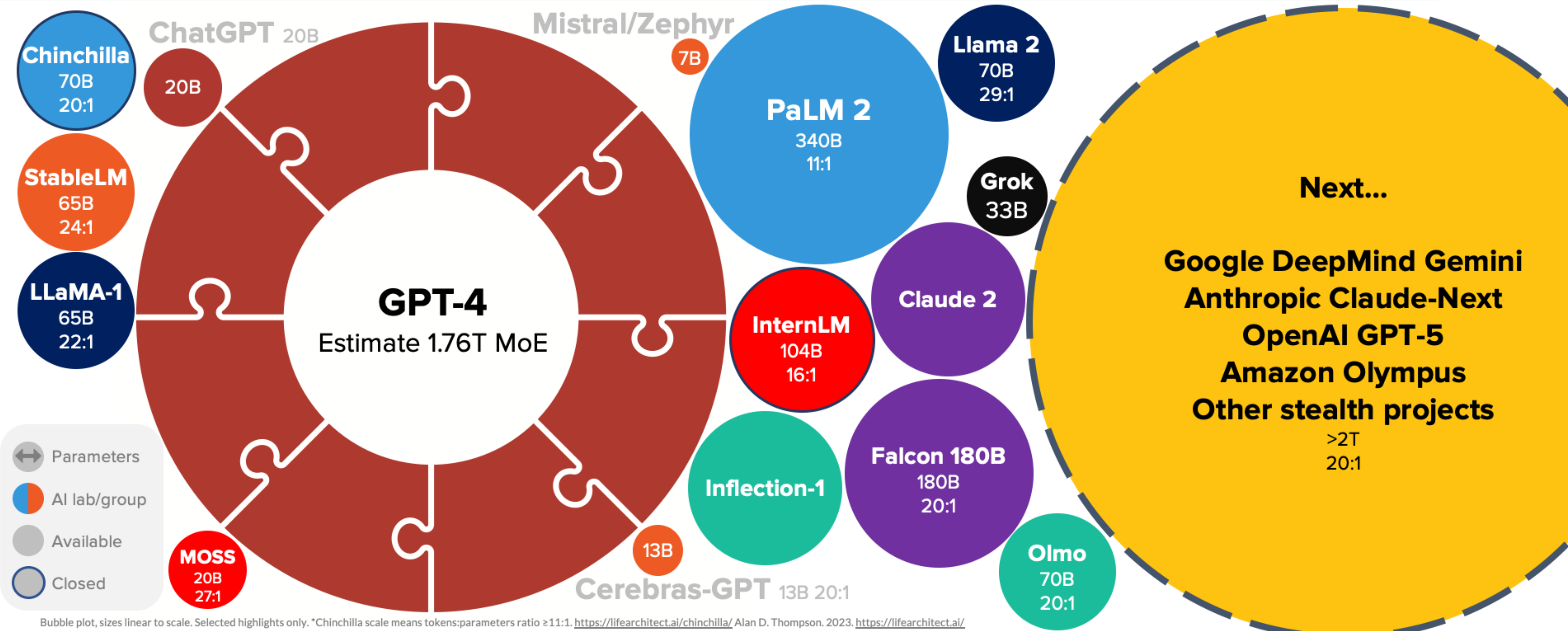
In 5 out of 22 occupation groups, Generative AI can affect more than half of all hours worked

Source: Accenture Research based on analysis of Occupational Information Network (O*NET), US Dept. of Labor; US Bureau of Labor Statistics.

Notes: We manually identified 200 tasks related to language (out of 332 included in BLS), which were linked to industries using their share in each occupation and the occupations' employment level in each job category. Tasks with higher potential for automation can be transformed by LLMs with reduced involvement from a human worker. Tasks with higher potential for augmentation are those in which LLMs would need more involvement from human workers.

2023-2024 OPTIMAL LANGUAGE MODELS

NOV/
2023



Bubble plot, sizes linear to scale. Selected highlights only. *Chinchilla scale means tokens:parameters ratio $\geq 11:1$. <https://lifearchitect.ai/chinchilla/> Alan D. Thompson. 2023. <https://lifearchitect.ai/>



PACE OF IMPROVEMENT

Answer this riddle: If eleven plus two equals one, what does nine plus five equal?

2019 AI ⓘ
GPT-2 ~\$4.6k

✘ Incorrect

The answer is nine plus five.

2020 AI ⓘ
GPT-3 ~\$690k

✘ Incorrect

The riddle is a play on words.
The answer is 'four'.

2022 AI ⓘ
GPT-3.5

✘ Incorrect

The riddle states, "If eleven plus two equals one." This implies that we need to interpret the numbers in a different way.

If we consider the numbers as words, then "eleven" has 6 letters, "two" has 3 letters, and "one" has 3 letters. So, the equation becomes:

$$6 + 3 = 3$$

Now, applying the same logic to "nine plus five":

"nine" has 4 letters, "five" has 4 letters, and the result should be the number of

2023 AI ⓘ
GPT-4 ~\$50m

✔ Correct

This riddle is based on the concept of a clock, where adding hours wraps around the 12-hour cycle.

If we start at 11 o'clock and add two hours, we get 1 o'clock.

So, if we start at 9 o'clock and add five hours, we get 2 o'clock.

Therefore, in the context of this riddle, nine plus five equals two.

Prompt Framework – How You Ask Matters

Persona (Role)

Act As

Tax Associate
Financial Analyst
Tax Advisor
Research Analyst
Documentation Specialist
CFO
Project Manager
Training Coordinator
Compliance Specialist
Client Advisor
Risk Analyst
Business Strategist
Technology Specialist

Objective (Task)

What To Do

Review / Create Drafts
Condense Reports
Communicate Information
Extract Insights
Simplify Articles
Explain Concepts
Solve Problems
Develop Training
Classify Sentiment
Impact Analysis
Strategic Advice
Query Resolution
Internal Training
Ensure Compliance
Explore Scenarios
Client Briefing
Guide Integration

Structure (Format)

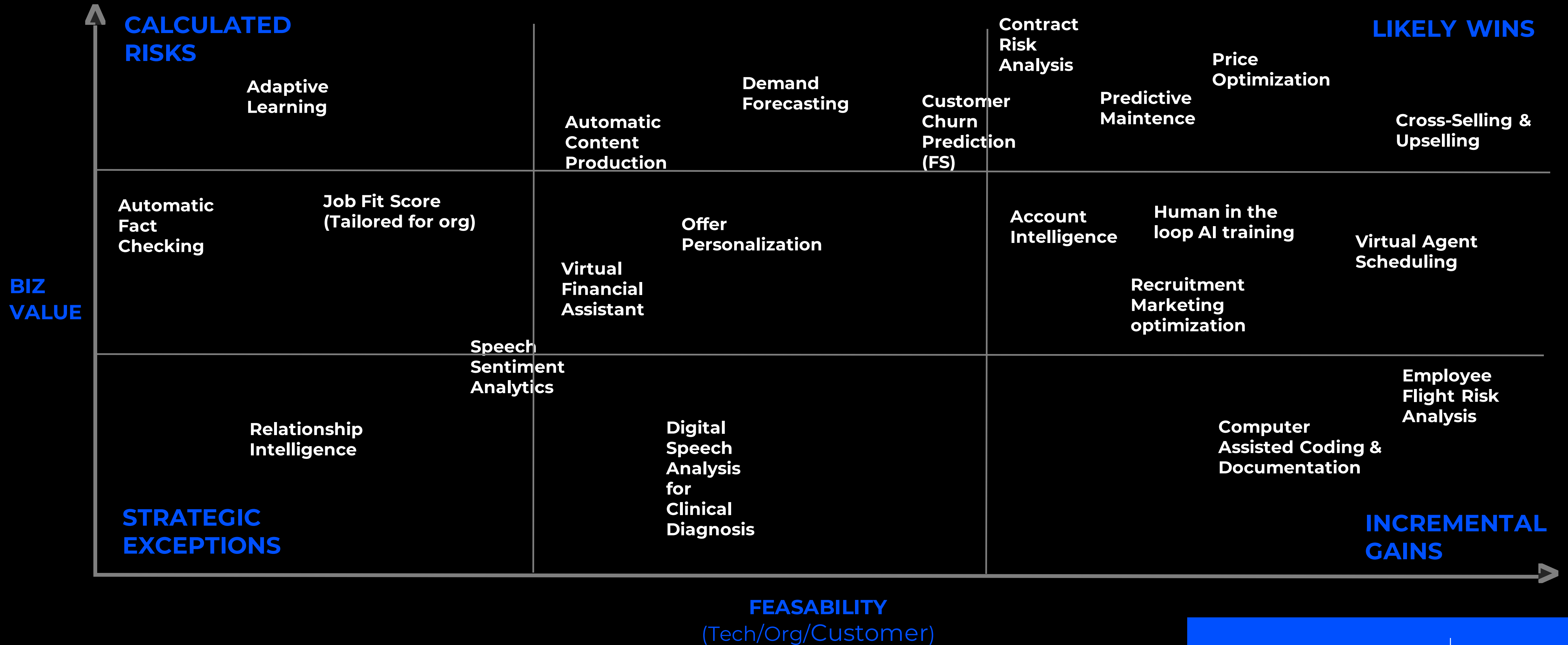
Show As

Document Outline
Track Changes
Summary Creation
Email Drafting
Insight Brief
Bullet List
Step-by-Step Guide
Educational Outline
Sentiment Report
Detailed Report
Advisory Memo
FAQ Document
Training Materials
Compliance Checklist
Scenario Analysis
Briefing Document
Implementation Guide

Categories of AI Use Cases

- **Experience Enhancer**
Tailors and refines user interactions, adapting to individual needs and preferences
- **Process Streamliner/Operational Optimizer**
Automates and optimizes complex workflows, ensuring efficiency and accuracy
- **Operation Watchdog/Alert & Advise Monitor**
Continuously monitors operations, flagging anomalies and ensuring optimal performance
- **Knowledge Miner/Prospector**
Delves into vast data sets, extracting valuable insights and patterns
- **Creation Catalyst**
Accelerates ideation and production, allowing rapid prototyping and iteration
- **Development Coach**
Offers personalized feedback and guidance, facilitating learning and growth

AI USE CASES - PRACTICAL STATE





ARTIFICIAL INTELLIGENCE MUST BE TIED TO BUSINESS STRATEGY

AI is not a standalone solution; it's a tool that enhances business strategy. Implementing AI without a clear business goal is like running a production line without quality checks – inefficient and costly.

Risks:

Reputational

Regulatory

Competency



**GLOBAL
REGULATIONS**



**BIAS &
DECISIONAL RISK**



CYBER RISK



TECH DEBT

September 2023



US LEGISLATION UPDATE

Biden AI executive order directs agencies to develop safety guidelines October 30, 2023

The order has eight goals:

- To create new standards for AI safety and security,

- Protect privacy,

- Advance equity and civil rights,

- Stand up for consumers, patients, and students,

- Support workers,

- Promote innovation and competition,

- Advance US leadership in AI technologies, and

- Ensure the responsible and effective government use of the technology.

Practical Approach

GET EDUCATED

Get your executive team and board educated. AI will disrupt business models, and those using it will make better decisions and improve operations.

ESTABLISH AI IMPACT ON YOUR STRATEGY

AI is not a standalone solution; it's a tool that enhances business strategy. Spend time uncovering prioritized business scenarios and the role of data and privacy. Establish use policies.

IDENTIFY DEPENDENCIES

Understand and invest in data infrastructure and management. Understand the capabilities needed to execute on strategy.

UNDERSTAND ROADMAPS

What are your technology solution partners doing – understanding roadmaps of critical systems. Leverage what your already bought.

DEVELOP & TEST USE CASES

Communicate your strategy and approach. Think about developing smaller POCs - consider functional areas such as Finance, Sales and Marketing, and HR.