

# Sizing the AI Economy

Thought Leadership Platform for Uniphore

April 2023





# Assignment

Uniphore competes in the bruising “conversational AI” space against many mega brands. Gartner’s magic quadrant for conversational AI included 19 companies and that’s only a sampling of its competitors.

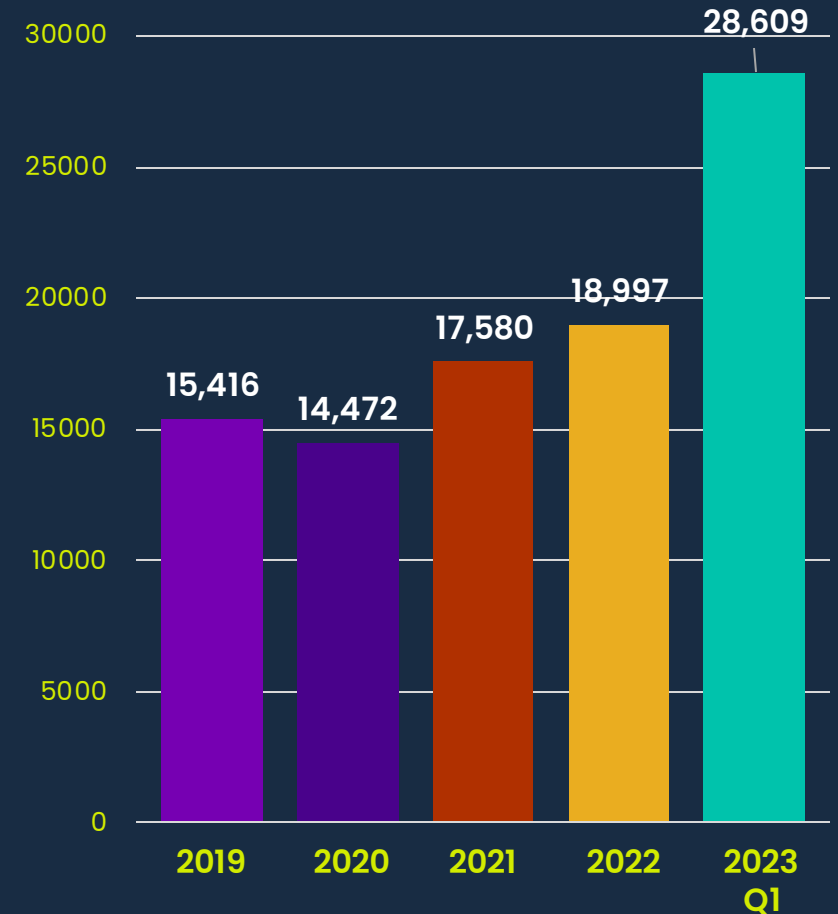
The company seeks a thought leadership platform to take the high ground and differentiate. Equally important, this can’t be a short-term event. It must sustain a regular drumbeat of visibility over the long term, which then builds the Uniphore brand and delivers air cover for sales.

# No Single Topic Currently Commands Attention Quite Like AI

Thanks to the introduction of ChatGPT, the profile of AI transcends the tech sector. Heck, the insurance salesperson in Omaha now understands AI's potential impact on business. The chart to the right depicts the number of articles with either [AI] or [artificial intelligence] in the headline (Source: Factiva). You can see the number of hits in Q1 of 2023 already far exceeds the entire total of 2022.

Crazy!

Number of Articles with AI or Artificial Intelligence in the Headline (source: Factiva)



# How Can Uniphore Ride This AI Wave of Interest?

By being the company that  
**quantifies** the AI economy.

Toward this end, we will dive  
into sizing the AI economy as a  
thought leadership platform.

# OK, Let's Rewind the Tape to Cisco Sizing the Internet's Impact on the Economy

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## Stage Setting

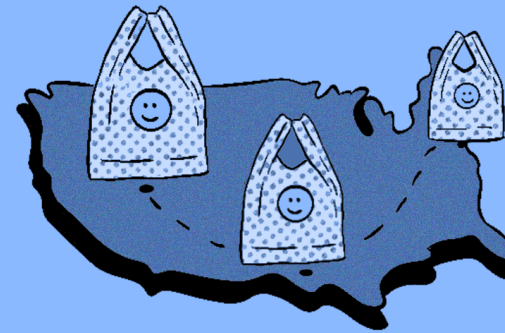
- Cisco, known for its switches and routers, recognized an opportunity to take the high ground as a leading driver of the internet.



# OK, Let's Rewind the Tape to Cisco Sizing the Internet's Impact on the Economy

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- Cisco was striving to differentiate from Lucent and commodity hardware for networking.
- The company engaged the University of Texas at Austin to conduct research on how the internet grew the U.S. economy.
  - Two data points anchored the study: job creation and an increase in GDP
  - The study ran from 1998 to 2000



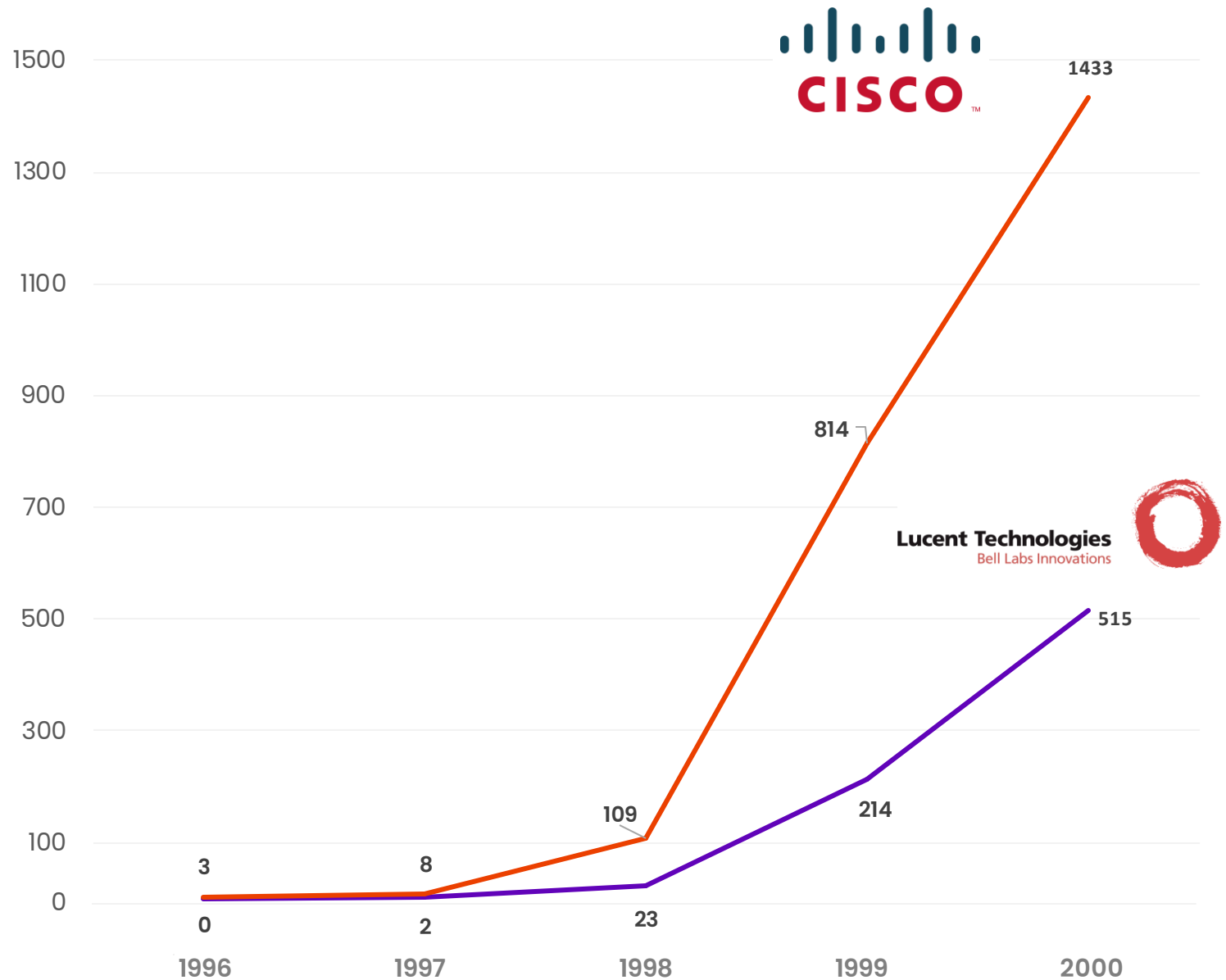
## GDP

*[ˈjē ˈdē ˈpē]*

The total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.

# Cisco Sizing the Internet's Impact on the Economy

These numbers capture how Cisco gained separation from Lucent (source: Factiva).



# Cisco Sizing the Internet's Impact on the Economy

CEO John Chambers  
adopted the study as  
a speaking pulpit.

//

*John Chambers could charm butter off toast.*

*Speaking to a sold-out audience at a Churchill Club's dinner held Tuesday evening at the Santa Clara Marriott, the down-home CEO of Cisco Systems (CSCO) once again spread the gospel of the Internet, saying that the "New Economy is the Internet economy," and as such, the Internet will change everything.*

**– From the Red Herring (Feb. 17, 1999)**






# Cisco Sizing the Internet's Impact on the Economy

Even after  
the dot-com meltdown,  
the media continued  
to reference Cisco  
and the study.

**CNET**

Your guide to a better future

Jan. 2, 2002 4:43 p.m. PT

3 min read 

Tech > Mobile

## Study shows continued Internet economy growth

Despite a bloodbath among dot-coms and related technology companies, new research suggests adoption of Internet technologies has a positive impact on the fragile U.S. economy.

# How Do Journalists Write About the Economic Impact of AI?

Of course, we had to start by asking ChatGPT the question, “What is the economic impact of artificial intelligence on the economy?”

# ChatGPT's Answer

“Artificial intelligence (AI) has the potential to transform many industries and have a significant impact on the economy. Here are some ways in which AI can affect the economy:

1. **Increased productivity:** AI can automate many tasks, reducing the need for human labor and increasing productivity. This can lead to cost savings and higher profits for businesses.
2. **New job opportunities:** While AI may eliminate some jobs, it can also create new job opportunities, particularly in fields related to AI development and maintenance.
3. **Improved decision-making:** AI can help businesses make better decisions by providing insights and predictions based on data analysis.
4. **Increased efficiency:** AI can optimize processes and reduce waste, leading to increased efficiency and lower costs.
5. **Improved customer experience:** AI can be used to provide personalized recommendations and improve customer service, leading to increased customer satisfaction and loyalty.
6. **Disruption of traditional industries:** AI has the potential to disrupt traditional industries, such as transportation and healthcare, leading to significant changes in the economy.

Overall, the economic impact of AI will depend on how it is developed, adopted and regulated. While AI has the potential to bring many benefits, it is important to consider the potential risks and work to mitigate them.”

# We Refined the Ask:

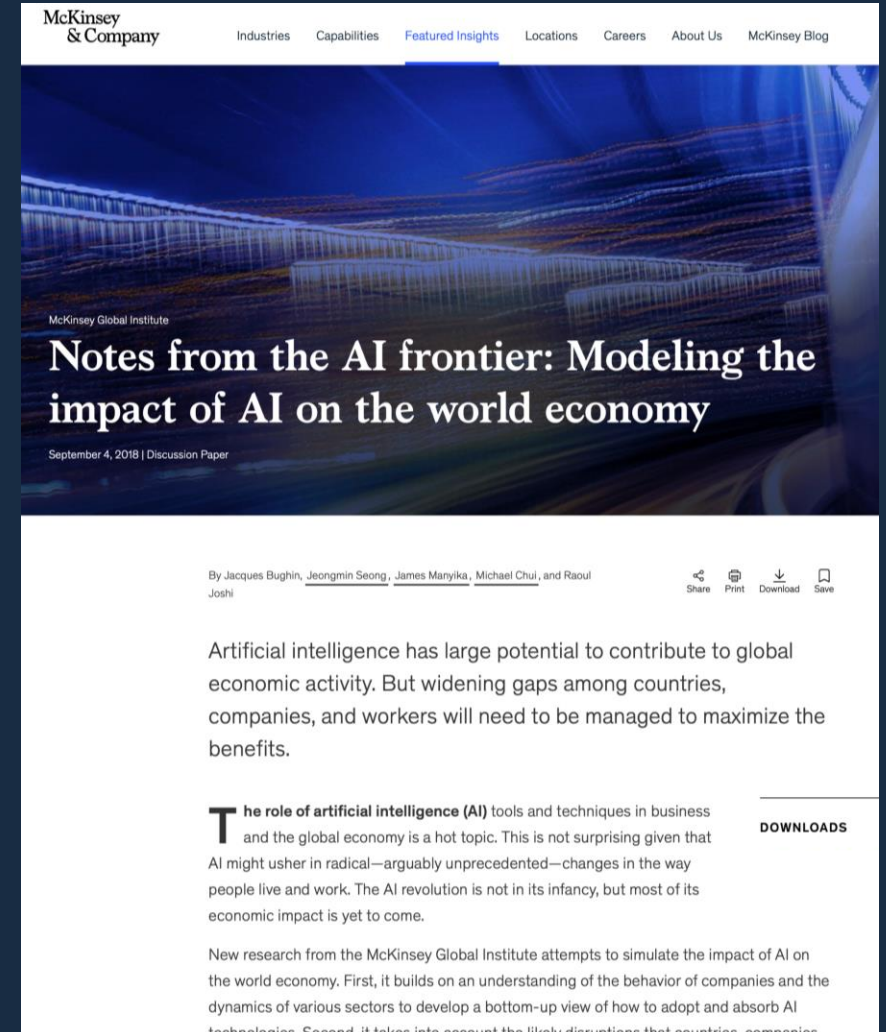
“Quantify the impact of artificial intelligence on the economy”

## No One Appears to Have Cracked the Code

“In conclusion, while the economic impact of AI is difficult to quantify precisely, it is clear that AI has the potential to bring both benefits and risks to the economy. Careful planning, regulation and investment are needed to maximize the benefits and mitigate the risks of AI.”

# Raking the Online Sand on the “AI Economy” Turned Up a McKinsey Paper (Sept. 2018)

- Includes two macro data points:
  - AI has the potential to deliver additional global economic activity of around \$13 trillion by 2030, or about 16% higher cumulative GDP compared with today. This amounts to 1.2% additional GDP growth per year.
  - Up to 800M workers could lose their jobs to AI and automation by 2030.




The screenshot shows the McKinsey & Company website. The navigation bar includes links for Industries, Capabilities, Featured Insights (which is highlighted), Locations, Careers, About Us, and McKinsey Blog. The main content area features a blue-toned background image of a futuristic cityscape with glowing lines. The title of the paper is 'Notes from the AI frontier: Modeling the impact of AI on the world economy', published on September 4, 2018, as a Discussion Paper. The authors listed are Jacques Bughin, Jeongmin Seong, James Manyika, Michael Chui, and Raoul Joshi. There are icons for Share, Print, Download, and Save. The text of the paper begins with: 'Artificial intelligence has large potential to contribute to global economic activity. But widening gaps among countries, companies, and workers will need to be managed to maximize the benefits.' A section titled 'The role of artificial intelligence (AI) tools and techniques in business and the global economy is a hot topic...' is followed by a 'DOWNLOADS' section. The final paragraph of the visible text reads: 'New research from the McKinsey Global Institute attempts to simulate the impact of AI on the world economy. First, it builds on an understanding of the behavior of companies and the dynamics of various sectors to develop a bottom-up view of how to adopt and absorb AI technologies. Second, it takes into account the likely disruptions that countries, companies,

# Journalists Covered the McKinsey Data Points: Job Displacement Dominates the Storyline

THE WALL STREET JOURNAL

CIO BLOG

## The Impact of Artificial Intelligence on the World Economy



A customer takes a picture as robotic arms collect pre-packaged orders according to the diners' orders, at Haidilao's new AI restaurant in Beijing.

By Irving Wladawsky-Berger  
Nov. 16, 2018 at 3:09 pm ET

SHARE AA TEXT

Artificial intelligence has the potential to increase global economic output around \$13 trillion by 2030 to current global economic output, according to a [September, 2018 report](#) by McKinsey & Company. The report also predicts that AI will displace 45 million jobs by 2030.

Information age

## Productivity rises in US and UK: Is this the fourth industrial revolution finally having an impact?



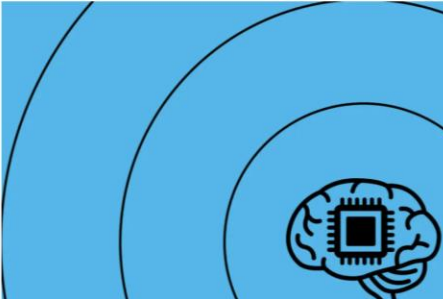
by Michael Baxter  
8 October 2018

TheVerge

TECH / ARTIFICIAL INTELLIGENCE / US & WORLD

## The AI boom is happening all over the world, and it's accelerating quickly / The second annual AI Index report pulls together data and expert findings on the field's progress and acceleration

By NICK STATT / @nickstatt  
Dec 12, 2018 at 8:00 AM PST | 0 Comments / 0 New



The New York Times

## When Robots Ring the Bell

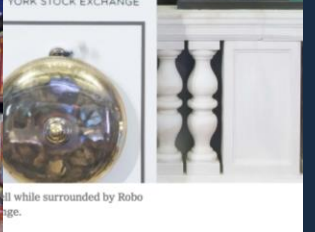


ROBO LISTED

ROBOGLOBAL

WATCH NOW

### Robot janitors are moving into Walmart

Starting next year, hundreds of robot janitors will be scrubbing floors at Walmart stores nationwide.





**The McKinsey study takes a “blue-sky” look at AI’s place in the economy rather than truly sizing AI’s impact on the economy.**

# PwC Also Generated a Report on the AI Economy (2017), Another “Blue-Sky” Approach

Journalists Periodically Reference (even though the data is old)

2017

## *Sizing the prize*

What’s the real value of AI for your business and how can you capitalise?

**+14%**

PwC research shows global GDP could be up to 14% higher in 2030 as a result of AI – the equivalent of an additional \$15.7 trillion – making it the biggest commercial opportunity in today’s fast changing economy.

**+26%**



The greatest gains from AI are likely to be in China (boost of up to 26% GDP in 2030) and North America (potential 14% boost). The biggest sector gains will be in retail, financial services and healthcare as AI increases productivity, product quality and consumption.





# Stanford Has Created the AI Index, Which Drills Down Into AI-Related Issues as Opposed to Economic Impact

Stanford University

  Stanford University  
Human-Centered  
Artificial Intelligence

THE AI INDEX

## Ground the conversation about AI in data

[READ THE 2023 AI INDEX REPORT](#)

**OUR MISSION**

**The AI Index tracks, collates, distills, and visualizes data relating to artificial intelligence.**

We provide unbiased, rigorously vetted, and globally sourced data for policymakers, researchers, journalists, executives, and the general public to develop a deeper understanding of the complex field of AI.

[LEARN MORE](#)

# More Recently, Goldman Sachs Took a Stab at Framing the AI Economy

Global Economics Analyst

## The Potentially Large Effects of Artificial Intelligence on Economic Growth (Briggs/Kodhani)

- n The recent emergence of generative artificial intelligence (AI) raises whether we are on the brink of a rapid acceleration in task automation that will drive labor cost savings and raise productivity. Despite significant uncertainty around the potential of generative AI, its ability to generate content that is indistinguishable from human-created output and to break down communication barriers between humans and machines reflects a major advancement with potentially large macroeconomic effects.
- n If generative AI delivers on its promised capabilities, the labor market could face significant disruption. Using data on occupational tasks in both the US and Europe, we find that roughly two-thirds of current jobs are exposed to some degree of AI automation, and that generative AI could substitute up to one-fourth of current work. Extrapolating our estimates globally suggests that generative AI could expose the equivalent of 300mn full-time jobs to automation.
- n The good news is that worker displacement from automation has historically been offset by creation of new jobs, and the emergence of new occupations following technological innovations accounts for the vast majority of long-run employment growth. The combination of significant labor cost savings, new job creation, and higher productivity for non-displaced workers raises the possibility of a productivity boom that raises economic growth substantially, although the timing of such a boom is hard to predict.
- n We estimate that generative AI could raise annual US labor productivity growth by just under 1½pp over a 10-year period following widespread adoption, although the boost to labor productivity growth could be much smaller or larger depending on the difficulty level of tasks AI will be able to perform and how many jobs are ultimately automated.

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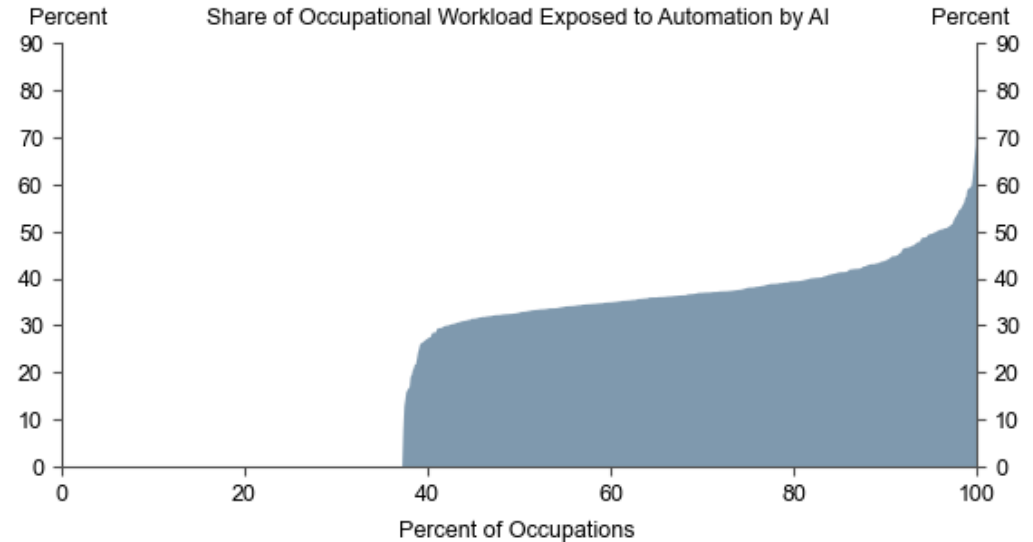
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# More Recently, Goldman Sachs Took a Stab at Framing the AI Economy

- Focused on generative AI:
  - Riff off the ChatGPT phenomenon
- Highlighted job displacement:
  - Makes the point that history shows when automation eliminates jobs, they're typically offset by the creation of new jobs. Yet, the study doesn't quantify AI's impact on job creation.

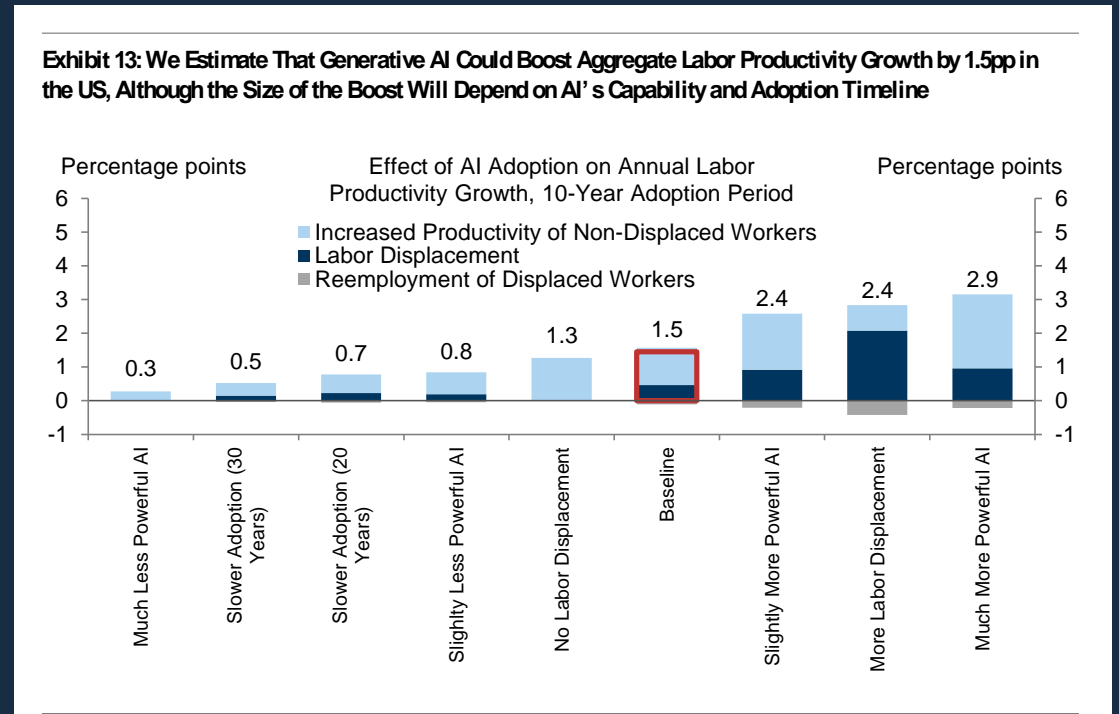
Exhibit 4: Two-Thirds of Current Occupations Could be Partially Automated by AI



Source: Goldman Sachs Global Investment Research

# More Recently, Goldman Sachs Took a Stab at Framing the AI Economy

- Estimated generative AI could raise U.S. labor productivity growth to just under 1.5% over a 10-year period.
  - A relatively easy dart to throw without putting a timeline to it.
- Much more difficult to research where we are today, the velocity of change and where will we be in 12 months.



# Still, the Media Widely Reported on the Goldman Sachs AI Study

Again, Emphasizing the Job-loss Narrative

INSIDER

HOME > TECH


AI systems like ChatGPT could impact 300 million full-time jobs worldwide, with administrative and legal roles some of the most at risk, Goldman Sachs report says

make it

WORK

Goldman Sachs says generative A.I. could impact 300 million jobs — here's which ones

Beatrice Nolan Mar 28, 2023, 6:00 AM



CNN BUSINESS

10:03 AM EDT

300 million jobs could be affected by latest wave of AI, says Goldman Sachs

By Michelle Toh, CNN  
Published 4:45 AM EDT, Wed March 29, 2023

Hong Kong (CNN) — As many as 300 million full-time jobs around the world could be automated in some way by the newest wave of artificial intelligence that has spawned platforms like ChatGPT, according to Goldman Sachs economists.

They predicted in a report Sunday that 18% of work globally could be computerized, with the effects felt more deeply in advanced economies than emerging markets.

NEWS

Tech

AI could replace equivalent of 300 million jobs - report





**The opportunity is there  
for a company to put a stake in the  
ground in quantifying the value  
creation from AI .**

# Opens the Door to Educate Government

"We believe AI may represent the most consequential technology advancement of our lifetime. There is enormous interest in the opportunity ahead. And responsibilities for those of us who develop this technology. We're using this time to educate, be curious and learn."

AXIOS PRO

## Who's schooling Congress on AI

Ashley Gold, Maria Curi  
Mar 30, 2023



Illustration: Brendan Lynch/Axios

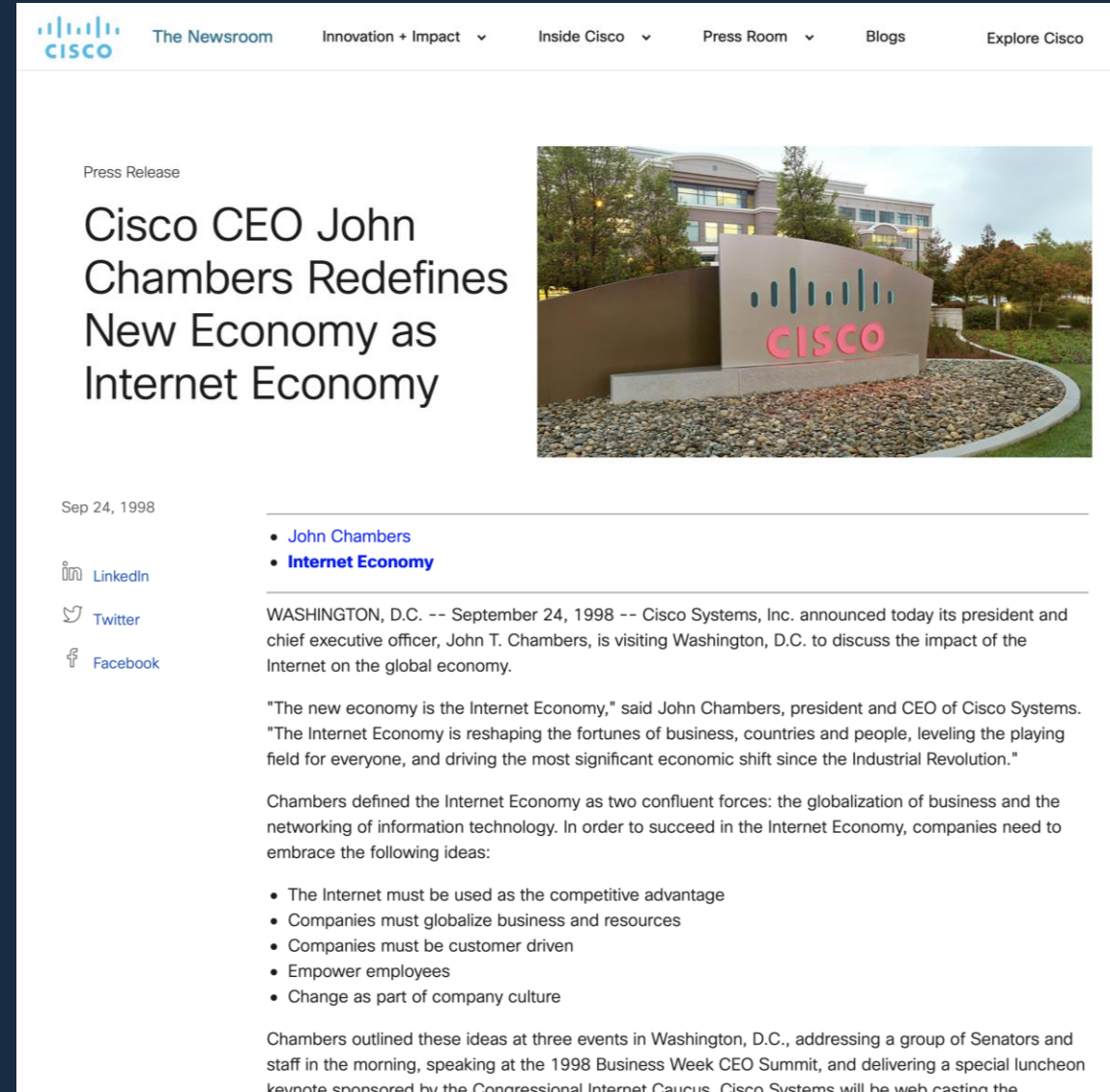
Congress gets a lot of flak for not being savvy on tech issues. But as artificial intelligence advancements heat up, some members are working hard to educate themselves.

- We caught up with lawmakers on whom they're turning to for guidance, and got feedback from companies on the messaging they're pushing on the Hill.

**Why it matters:** AI has the potential to transform our society, and as lawmakers grapple with

# Opens the Door to Educate Government

BTW, Cisco/Chambers leveraged the internet economy to penetrate the D.C. ecosystem.



The screenshot shows a Cisco press release page. At the top is the Cisco logo and navigation links: 'The Newsroom', 'Innovation + Impact', 'Inside Cisco', 'Press Room', 'Blogs', and 'Explore Cisco'. The main heading is 'Cisco CEO John Chambers Redefines New Economy as Internet Economy'. To the right is a photograph of a Cisco building with a large sign in the foreground that says 'CISCO'. Below the heading is the date 'Sep 24, 1998' and social media sharing options for LinkedIn, Twitter, and Facebook. A list of tags includes 'John Chambers' and 'Internet Economy'. The body text begins with 'WASHINGTON, D.C. -- September 24, 1998 -- Cisco Systems, Inc. announced today its president and chief executive officer, John T. Chambers, is visiting Washington, D.C. to discuss the impact of the Internet on the global economy.' It then includes a quote from John Chambers: '"The new economy is the Internet Economy," said John Chambers, president and CEO of Cisco Systems. "The Internet Economy is reshaping the fortunes of business, countries and people, leveling the playing field for everyone, and driving the most significant economic shift since the Industrial Revolution."' This is followed by a paragraph defining the Internet Economy as two forces: globalization of business and networking of information technology. A list of five ideas follows: 1. The Internet must be used as the competitive advantage; 2. Companies must globalize business and resources; 3. Companies must be customer driven; 4. Empower employees; 5. Change as part of company culture. The final paragraph states that Chambers outlined these ideas at three events in Washington, D.C., including the 1998 Business Week CEO Summit and a luncheon keynote sponsored by the Congressional Internet Caucus.

Press Release

## Cisco CEO John Chambers Redefines New Economy as Internet Economy

Sep 24, 1998

[LinkedIn](#)

[Twitter](#)

[Facebook](#)

- [John Chambers](#)
- [Internet Economy](#)

WASHINGTON, D.C. -- September 24, 1998 -- Cisco Systems, Inc. announced today its president and chief executive officer, John T. Chambers, is visiting Washington, D.C. to discuss the impact of the Internet on the global economy.

"The new economy is the Internet Economy," said John Chambers, president and CEO of Cisco Systems. "The Internet Economy is reshaping the fortunes of business, countries and people, leveling the playing field for everyone, and driving the most significant economic shift since the Industrial Revolution."

Chambers defined the Internet Economy as two confluent forces: the globalization of business and the networking of information technology. In order to succeed in the Internet Economy, companies need to embrace the following ideas:

- The Internet must be used as the competitive advantage
- Companies must globalize business and resources
- Companies must be customer driven
- Empower employees
- Change as part of company culture

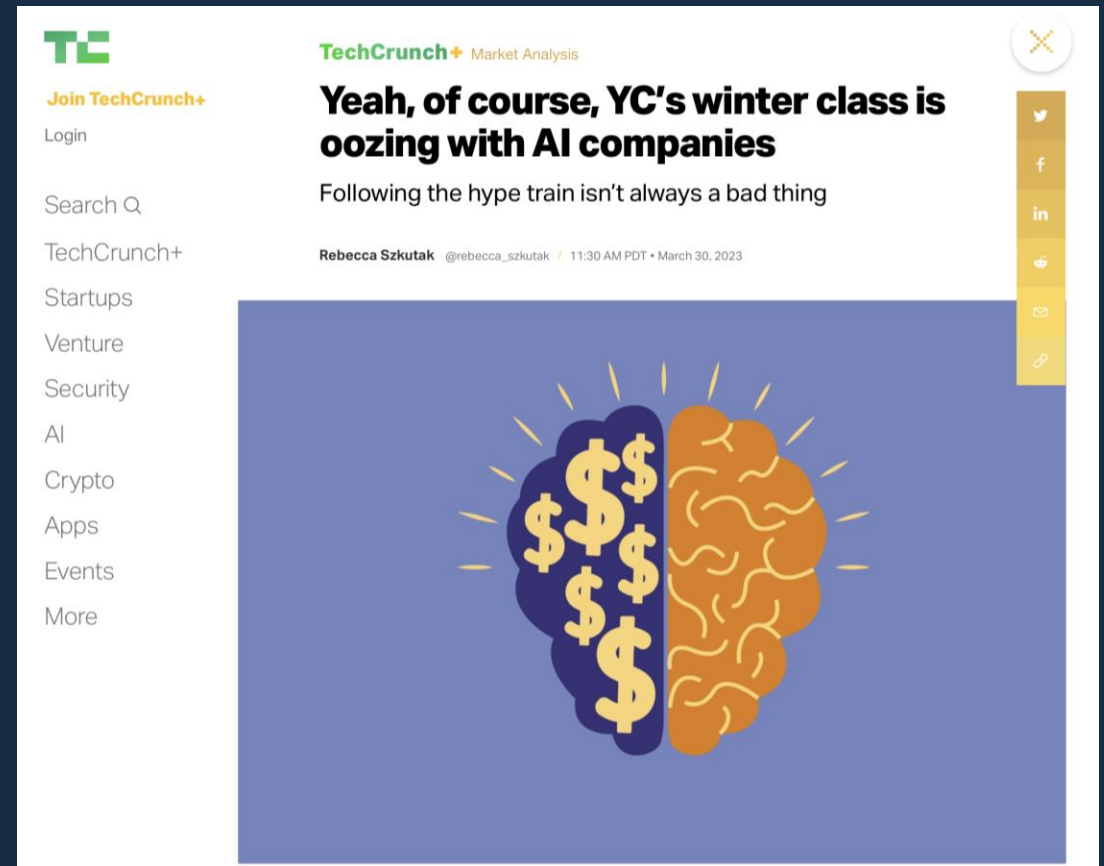
Chambers outlined these ideas at three events in Washington, D.C., addressing a group of Senators and staff in the morning, speaking at the 1998 Business Week CEO Summit, and delivering a special luncheon keynote sponsored by the Congressional Internet Caucus. Cisco Systems will be web casting the



# What Variables Do Today's Journalists Use to Frame the AI Economy?

## Lean Heavily into the Startup Scene

- How much venture funding is going to AI startups?
  - \$5.B since 2022, up from \$1.5B in 2020 (Source: Pitchbook)
- Number of AI startups
- Number of AI startups acquired by other companies



The screenshot shows a TechCrunch article page. The TechCrunch logo is in the top left. Below it are links for 'Join TechCrunch+', 'Login', and a search bar. A navigation menu on the left lists categories: Startups, Venture, Security, AI, Crypto, Apps, Events, and More. The article title is 'Yeah, of course, YC's winter class is oozing with AI companies' by Rebecca Szkutak, dated March 30, 2023. The sub-headline reads 'Following the hype train isn't always a bad thing'. The main image is a stylized brain where the left half is dark blue with yellow dollar signs, and the right half is orange with yellow squiggly lines representing neural activity.

# What Variables Do Today's Journalists Use to Frame the AI Economy?

## Robotics, Job Loss and Economic

- Number of robotics deployed
- Predictions that AI will replace workers:
  - Blue collar
  - White Collar
- Increased worker productivity and increased GDP (again looking out many years)

# What Variables Do Today's Journalists Use to Frame the AI Economy?

## Other AI Indicators Correlated to the Economy

- Number of classified ads for AI talent
- Supply of AI talent can't keep pace with demand
- Number of AI Ph.D. grads

# What Variables Do Today's Journalists Use to Frame the AI Economy?

Many Stories Strive to Tease Out the Humanity via Anecdotes

*"When in September Hurricane Ian forced Walmart to shut a large distribution hub, halting the flow of goods to supermarkets in Florida, the retailer used a new AI-powered simulation of its supply chain to reroute deliveries from other hubs and predict how demand for goods would change after the storm."*

— From "Artificial intelligence is Permeating Business at Last" (The Economist, Dec 6, 2022)

Artificial intelligence is permeating business at last

The age of "boring AI" will be anything but



# Many Stories Strive to Tease out the Humanity via Anecdotes

## Alaska Airlines Deploys AI for Flight Routing (Fortune, July 27, 2021)

Today, airplanes in the U.S. don't fly a straight-line path between takeoff and landing. Instead, they zig-zag in the general direction of their destination, dog-legging between a series of navigational waypoints. These waypoints form what are essentially highways in the sky. But there are many different possible routes between waypoints and it is up to the dispatchers to determine which of these skyways the plane will travel to reach its destination.

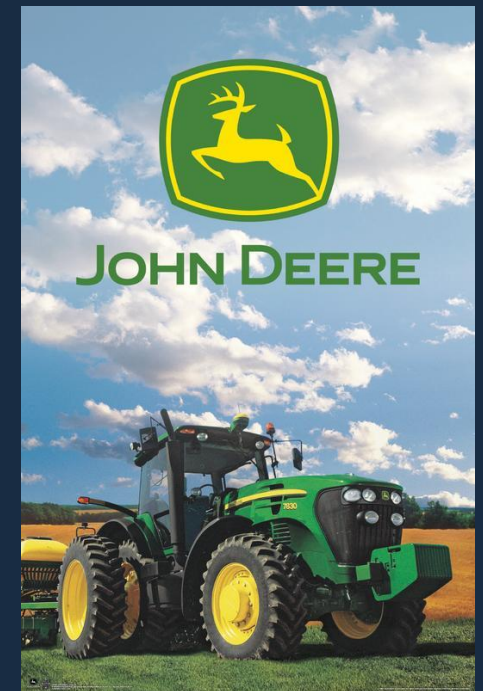
To do this, the dispatchers take into account weather and wind forecasts, as well as military and other airspace restrictions, and sometimes reports of turbulence provided by pilots who have already flown that same route earlier in the day. Finding this information often requires the dispatcher to flip back and forth between a dozen different government, private weather forecasting, airport and internal airline databases.



# Many Stories Strive to Tease out the Humanity via Anecdotes

## And Here's Another One, Again from The Economist on the Intersection of AI and Agriculture

The machines are coming for your crops — at least in a few fields in America. This autumn, John Deere, a tractor-maker, shipped its first fleet of fully self-driving machines to farmers. The tilling tractors are equipped with six cameras, which use artificial intelligence (AI) to recognize obstacles and maneuver out of the way. Julian Sanchez, who runs the firm's emerging technology unit, estimates that about half the vehicles John Deere sells have some AI capabilities. That includes systems that use onboard cameras to detect weeds among the crops and then spray herbicides and combine harvesters that automatically alter their own setting to waste as little grain as possible.



# Making Sense of AI (not just the AI economy)

Everyone is trying to figure out how AI will impact society. The White House released what it called the “AI Bill of Rights” last October as the path for responsible AI.

Here’s the reality. No one knows how this will play out in the coming years.

By sizing the AI economy, Uniphore gains the street cred to not only talk about issues but also have a seat at the table to shape issues. Organizations like the Office of Science and Technology Policy (OSTP), not just journalists, will seek your opinions.



THE WHITE HOUSE

MENU

## BLUEPRINT FOR AN AI BILL OF RIGHTS

MAKING AUTOMATED SYSTEMS WORK FOR THE AMERICAN PEOPLE

OSTP

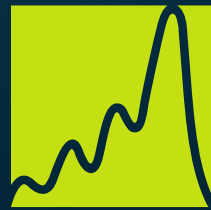
**A**mong the great challenges posed to democracy today is the use of technology, data, and automated systems in ways that threaten the rights of the American public. Too often, these tools are used to limit our opportunities and prevent our access to critical resources or services. These problems are well documented. In America and around the world, systems supposed to help with patient care have proven unsafe, ineffective, or biased. Algorithms used in hiring and credit decisions have been found to reflect and reproduce existing unwanted inequities or embed new harmful bias and discrimination. Unchecked social media data collection has been used to threaten people’s opportunities, undermine their privacy, or pervasively track their activity—often without their knowledge or consent.

# Closing Comments

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- We are excited about the possibilities (needless to say).
- There's no question in our minds that with the right execution, the AI economy study would take the Uniphore brand to another level, as well as increase the valuation of the company.
- Calculating the ROI needs to take into account Uniphore's association with the AI economy, which will go on for years.
  - How long can we expect journalists, government officials and other pundits to talk about the impact of AI on the economy? A good seven to 10 years seems like a conservative projection.
- We look forward to your feedback.





The  
**Hoffman**  
Agency

The **story** is always there.