

311 INSTITUTE · INTELLIGENCE UNIT



THE DEAD INTERNET THEORY, PRICED

What bots and AI agents mean for the
real cost of reaching buyers

REPORT

Foresight study

PREPARED FOR

Marketing leaders, business owners and investors

BY

Matthew Griffin · London

DATE

12 October 2026

ABOUT THE 311 INSTITUTE

The 311 Institute, a London-based global leader in Futures, Deep Futures and Dynastic Futures advisory, exists to serve and help leaders anticipate, explore and shape every future.

History has repeatedly shown that organisations are made or broken by disruption — made by the shifts they saw and acted on in time, and broken by those they missed, misunderstood or met too late.

The VUCA-MAX world runs on accelerating, complex change — hard to anticipate, harder to answer. Almost half the world's CEOs believe their companies will not be economically viable within a decade without reinvention. That widening gap — seeing the future, understanding it, acting in time — is the one we exist to close.

With a track record of trust and excellence built advising the world's largest organisations, we close that gap in a way no one else can. Where others offer opinion we offer a record, where others see slices of the future we see the whole horizon, and where others offer partial solutions we offer everything.

Used by the world's most consequential organisations — among them Walmart, the world's largest employer, alongside ABB, Accenture, Adidas, Allianz, AON, ARM, AT&T, Auchan, BCG, BlackRock, Citigroup, Coca-Cola, DP World, Emirates Airlines, EY, the FAA, Google, HP, Huawei, KPMG, LGT, Nokia, Novartis, PepsiCo, PwC, Roche, RWE, Samsung, Siemens AG, Standard Chartered, T-Mobile, UBS, Visa, Workday, Worldpay and the United Nations, together with royal households and G7, G20 and G77 leaders. We advise boards, governments and investors across every industry and at every scale, helping countries grow and enterprises become Centennial companies built to endure beyond a hundred years.

In a world that punishes the unprepared, the gap between seeing the future and shaping it is all too often the one that determines who thrives and survives, and who doesn't. We close that gap.

ABOUT THE AUTHOR

**Matthew Griffin**

Founder & Futurist in Chief · 311 Institute, London

Matthew Griffin is a multi-award-winning futurist and expert in disruption and innovation, geopolitics, leadership and technology, described as a "walking encyclopaedia of the future" and a "futurist polymath." A 15-time best-selling author of the "Codex of the Future" series, he is the Founder and Futurist in Chief of the 311 Institute — a global Futures and Deep Futures advisory firm working with royal households, world leaders, G7, G20 and G77 governments, NGOs and multinational mid- and mega-cap firms to help them explore, shape and lead the next 50 years of business and society.

An award-winning YouTube creator with over a million followers and unrivalled global reach, Matthew is a highly sought-after international keynote speaker, lecturer and mentor. He collaborates with global leaders through the United Nations Alliance of Civilizations (UNAOC) and the United Nations General Assembly (UNGA) to shape initiatives such as the UN's AI for Humanity programme, the UN Conference of the Parties (COP) and the World Economic Forum in Davos.

As the former Global Head of Cloud, National Security and Enterprise Sales for companies including Atos, Dell-EMC and IBM, Matthew has a proven track record of building multi-billion-dollar business units and turning failing divisions into market leaders. His ability to identify, analyse and communicate the implications of hundreds of emerging technologies and trends is unparalleled, and his insights are trusted by many of the world's most respected organisations.

Regularly featured in the global media — including the AP, BBC, Bloomberg, CNBC, Discovery, Forbes, Khaleej Times, the Telegraph, TIME, ViacomCBS, WIRED and the WSJ — Matthew's mission is to help organisations create a fair and sustainable future whose benefits are shared by everyone, irrespective of ability, background or circumstance.

CONTENTS

PART I

What advertisers really buy	09
Words used in this report	11
A \$1.34tn market	12
Three markets for attention	13

PART II

The dead internet theory, tested	17
Where the idea came from	19
How much traffic is bots	19
How much content AI makes	20
What the evidence shows	20

PART III

The open web is shrinking	24
AI answers take the clicks	24
Publishers feel it first	26
Money moves to private deals	27

PART IV

Who really sees the ads	30
A short history of ad fraud	32
Shown is not paid for	32
The trust problem	32

PART V

AI agents become shoppers	35
How big could it get	37
What has launched so far	37
Ads inside AI assistants	38

PART VI

Proving you are human gets harder	40
The CAPTCHA is broken	42
Stronger checks arrive	42
Deepfakes raise the stakes	42

PART VII

The price of reaching people	45
What moves the price	48
A check against history	49

PART VIII

Who sees your ads by 2040	52
---------------------------	----

Ads seen, not web visits	54
--------------------------	----

PART IX

Testing the numbers	57
Three rounds of review	58
What the model cannot see	59

PART X

What to do now	62
Six moves for advertisers	64
For publishers, platforms and investors	64
What to watch each year	65

CLOSING REMARKS

Strategic summary	67
Assumptions and caveats	68

ANNEX

Notes and method	70
Trust bands	72
Source ledger	73
Terms & conditions	83

THE 311 INSTITUTE READ

IN BRIEF

This report is for marketing leaders, business owners and investors who pay for advertising or depend on it. It asks two questions. By 2040, what will it cost to reach as many real customers as today, after inflation? And how many ads will be seen by bots and AI instead of people?

THE OBVIOUS READ

The dead internet theory says bots and AI-made content have taken over the web. Bots already make more than half of web traffic. So it seems obvious that real people will become rare online, and that reaching them will cost many times more.

THE FULLER PICTURE

Real people are not disappearing. Bots make up much of web traffic, but they see far fewer of the ads that advertisers pay for. AI also lets big platforms build more ad space for the real people they already have. So costs rise, but slowly: about 1.3x today's price on trusted platforms by 2040, after inflation.

EXECUTIVE SUMMARY

The dead internet theory is right about the direction and wrong about the size. By 2040, reaching as many real customers as today on trusted platforms costs about 1.3x today's price, after inflation. On the open web, each real person costs 1.4x. Neither costs several times more.

In 8 out of 10 of our 5,000 test runs, that cost lands between 1.0x and 1.8x. It goes above 2x in about 4 in 100 runs.

Bots now make more than half of web traffic, and about half of new web articles are written mainly by AI. But people still do most of the reading, watching and buying.

The cost of each sale stays about the same, near 1.0x today's level. AI finds better audiences and makes better ads, so more viewers buy.

One in five ads shown in 2040, about 20%, is seen by no person. On the open web it is 48%. On trusted platforms it is about 9%.

The open web looks cheaper than it is. By 2040 an ad on a trusted platform costs 2.0x an open-web ad. But measured per real person reached, the gap barely moves: about 1.6x today and 1.5x in 2040.

What to do: pay for sales, not views. Move spend to trusted platforms and your own customer lists. Test ads in AI assistants now. Budget for checking that viewers are real.

All future prices in this report have inflation taken out, so 2040 compares directly with 2026. Every number after 2026 is a forecast.

01

PART ONE

WHAT ADVERTISERS REALLY BUY

Advertisers pay to reach people with money, not just eyeballs.

01

When AI can make endless ads and pages,
what is still in short supply?

Real people with money to spend, making their own
choices, on a platform that can prove they are real.

SCOPE

Advertising

Online shopping

Whole world

This report answers its two questions in three steps. Parts II to VI look at the evidence today: bots, AI content, the shrinking open web, ad fraud, AI shoppers and proof of being human. Parts VII to IX turn that evidence into a forecast to 2040 and test it. Part X sets out what to do.

Years

2026–2040

Prices

After inflation

We count

Real customers

One idea runs through the report. Soon most of what we see online will be made by AI at the moment we look. Each page, feed, answer and ad can be made for one person. So there is no fixed number of ad spaces. Platforms decide how many ads to show.

WORDS USED IN THIS REPORT

TERM	WHAT IT MEANS HERE
After inflation (real terms)	Prices with general price rises taken out, so 2040 can be compared directly with 2026
1.3x	1.3 times the 2026 cost. 2026 is always 1x
Trusted platforms	Logged-in apps and sites that know their users are real people, such as social media, search, online shops and AI assistants
Open web	Ordinary websites where ads are sold through open auctions, and where many visitors are bots
Programmatic	Ads bought and sold automatically by software, often in auctions that last a fraction of a second
Private deal	A programmatic deal between chosen buyers and sellers, usually on better-checked sites
Ads shown (impressions)	Each time an ad is shown on a screen. Advertisers usually pay per thousand of these
Invalid traffic	Ad views from bots or fraud rather than real people
AI agents	AI helpers that browse, compare and sometimes buy on a person's behalf
80% range	Where 8 out of 10 of our 5,000 test runs landed
Forecast, confidence, tripwire	Our best estimate of the future, how likely we think it is, and an early warning sign that it is going wrong

WORDS USED IN THIS REPORT • SOURCE: 311 INSTITUTE 2026

A \$1.34TN MARKET

The world is forecast to spend about \$1.34tn on advertising in 2026, up 11.9% on 2025.^[1] That is more than the yearly output of most countries.

Most of it is now digital. Social media takes about \$395bn, search about \$296bn and ads on shopping sites about \$202bn.^[2] Digital channels took 81.6% of the market in 2025.^[3]

Three companies dominate. Outside China, Alphabet (Google's owner), Amazon and Meta take about 60% of all ad spend.^[4] Google earned \$81.6bn from ads in just one quarter of 2026.^[5] Amazon earned over \$68bn from ads in 2025.^[6]

Meta shows how the market works. In 2025 it showed 12% more ads and charged 9% more for each one.^[7] In each quarter since, both numbers kept rising.^[8]

QUARTER	MORE ADS SHOWN THAN A YEAR BEFORE	HIGHER PRICE PER AD THAN A YEAR BEFORE
Q1 2025	+5%	+10%
Q2 2025	+11%	+9%
Q3 2025	+14%	+10%
Q4 2025	+18%	+6%
Q1 2026	+19%	+12%
Q2 2026	+14%	+12%

META: MORE ADS AND HIGHER PRICES • SOURCE: META QUARTERLY RESULTS, 2025–2026 (BEFORE INFLATION)

This matters for our forecast. A platform can show more ads and still raise prices, because more advertisers want its real, logged-in users. Real users are scarce, so their price rises even as the number of ads grows.

Ad spending also tracks the size of the economy. WPP Media puts it at about 1% of world GDP.^[9] Longer US records put it between 1.2% and 3.0% of GDP for almost 90 years.^[10] The measures differ, but both show a stable share.

THREE MARKETS FOR ATTENTION

What stays rare is a moment when a real person with money is choosing what to buy. Those moments happen mostly inside big platforms. Advertisers already spend most of their money there. Alphabet, Amazon and Meta alone take about 60% outside China.^[4]

We split the market into three parts. The split is our own estimate, not a published figure.

PART OF THE MARKET	WHAT IT IS	SHARE OF MONEY AIMED AT PEOPLE
Trusted platforms	Logged-in feeds, search, online shops and AI assistants where a real buyer is known	About 75% today, about 85% by 2040
AI agent choices	Money spent to get products picked by AI shopping helpers, through product listings, paid placement and sales fees	Small today, growing as AI helpers make more choices
Open web	Ordinary websites, shrinking as AI answers take the clicks, with more visitors that are bots	The rest, falling

THREE MARKETS FOR ATTENTION • SOURCE: 311 INSTITUTE ESTIMATE, OCTOBER 2026

Advertisers only pay to reach people who have money and decide how to spend it. About 4.4bn people are now in the world's middle and rich classes.^[11] About 6bn people use the internet.^[12] People with money to spend are the audience in this study.

THE NUMBERS

What the market looks like today

1.34 \$tn

WORLD AD SPEND, 2026

WARC 2026 · SINGLE-SOURCE

60 %

**ALPHABET, AMAZON AND META
SHARE OUTSIDE CHINA**

WARC 2026 · SINGLE-SOURCE

1.6 x

**PRIVATE-DEAL PRICE OVER OPEN
WEB**

ANA 2025 · PRIMARY

92 %

**OF AUTOMATED BUYING VIA
PRIVATE DEALS**

ANA 2026 · PRIMARY

I CHAPTER SUMMARY

What matters is a moment when a real customer, checked as real, is choosing what to buy. How many of those moments exist depends on platforms, people and AI helpers. It does not depend on how much content is online.

Real buyers are scarce. Content is not.

CHAPTER CLOSE

WHAT NEXT?

What advertisers really buy

QUESTIONS TO ASK

- 1 Which of your customers can a platform prove are real people?
- 2 How much of your ad spend reaches people who choose for themselves?
- 3 How many of your customers already let apps or AI shop for them?

02

PART TWO

THE DEAD INTERNET THEORY, TESTED

Bots and AI content are everywhere. People have not gone.

02

Is most of the internet now fake?

Most web traffic is now bots, and about half of new articles are written by AI. But people still do most of the reading, watching and buying.

SCOPE

Bots

AI content

Evidence

This part tests a popular idea against the data. Is the internet now mostly bots and AI, with few real people left?

Bots, 2025

53% of traffic

AI articles

about half

AI music streams

1–3%

WHERE THE IDEA CAME FROM

The dead internet theory began on an online forum in January 2021. A post claimed that most of the internet is fake, written by bots for bots.^[13] It was a conspiracy theory with no real evidence at the time.

Five years on, it no longer sounds so strange. In 2025 OpenAI's boss, Sam Altman, said there are now 'a lot of LLM-run twitter accounts', meaning accounts run by AI chatbots.^[14] Merriam-Webster made 'slop', meaning low-quality AI-made content, its Word of the Year.^[15]

So the theory makes two claims we can test. First, that most traffic online is bots. Second, that most content is made by AI. This chapter checks both against the data.

HOW MUCH TRAFFIC IS BOTS

The longest record comes from the security firm Imperva. Bad bots, such as scrapers and fraud tools, made 23.6% of web traffic in 2013.^[16] In 2024 bots passed humans. By 2025 they made 53% of all traffic.^[17]

YEAR	ALL BOTS	BAD BOTS	PEOPLE
2013	not given	23.6%	not given
2015	not given	18.6%	not given
2023	49.6%	32%	50.4%
2024	51%	37%	49%
2025	53%	40%	47%

SHARE OF WEB TRAFFIC MADE BY BOTS • SOURCE: THALES IMPERVA BAD BOT REPORTS, 2024–2026

Cloudflare, which carries a large share of the web, sees the same trend. On 8 June 2026, bots made 57.2% of requests for web pages on its network.^[18]

Much of this new traffic comes from AI. AI companies send crawlers to read the web and train their models. In July 2025 Anthropic's crawler read about 38,000 pages for every visit it sent back to a website. OpenAI's read about 1,091. Google's read 5.4.^[19]

AI is driving the growth. AI-driven traffic grew 187% during 2025, and automated traffic grew 8 times faster than human traffic.^[20]

I HOW MUCH CONTENT AI MAKES

AI-written articles overtook human-written ones in November 2024. They have stayed near half of new articles since.^[21] About 35% of new websites published by mid-2025 were made or helped by AI.^[22]

Some of this is deliberate junk. NewsGuard has found 3,749 'content farm' news sites run mostly by AI, in 16 languages.^[23]

Music shows the gap between what is made and what is used. In June 2026, more than half of new uploads to Deezer were fully AI-made. Yet AI music was only 1–3% of what people actually streamed.^[24]

You may have read that 90% of online content would be made by AI by 2026. That was an expert's estimate, not a measurement.^[25]

I WHAT THE EVIDENCE SHOWS

The data supports part of the theory. Most web requests are now made by machines, and much new content is made by AI.

The data does not support the rest. There is no evidence that most people online are fake. People still choose what to read, watch and buy. AI music makes up half the uploads but almost none of the listening.

Most bot traffic is also measured by security firms that sell bot defence. Their numbers are real, but they count requests, not people or paid ads. That difference is the subject of Part IV.

THE NUMBERS

The dead internet theory in numbers

53%

OF WEB TRAFFIC BY BOTS, 2025

IMPERVA 2026 · PRIMARY

57%

**OF CLOUDFLARE PAGE REQUESTS
BY BOTS**

CLOUDFLARE 2026 · CORROBORATED

~50%

**OF NEW ARTICLES MAINLY AI-
WRITTEN**

GRAPHITE 2025 · PRIMARY

3,749

**AI CONTENT-FARM NEWS SITES
FOUND**

NEWSGUARD 2026 · PRIMARY

I CHAPTER SUMMARY

The machines have arrived, but mostly as crawlers, scrapers and content factories. Real people are still the ones reading, listening and paying.

The internet is not dead. It is crowded.

CHAPTER CLOSE

WHAT NEXT?

The dead internet theory, tested

QUESTIONS TO ASK

- 1 How much of your website traffic is bots, and do you know which ones?
- 2 Is your content written for people, or for AI crawlers?
- 3 Which of your audience numbers come from firms that sell bot defence?

03

PART THREE

THE OPEN WEB IS SHRINKING

AI answers take the clicks, and ad money follows people to trusted platforms.

03

What happens to ordinary websites when AI answers the question first?

They lose visitors, then ad money. Search traffic to publishers fell by 40% in a year, and ad buyers moved to private deals.

SCOPE

Search

Publishers

Ad buying

This part looks at ordinary websites, the open web. They are losing readers to AI answers, and advertisers to private deals.

Search traffic to publishers

–40% in a year

Clicks with AI summary

8% against 15%

Private-deal share

over 92%

I AI ANSWERS TAKE THE CLICKS

Google now shows AI-written answers, called AI Overviews, at the top of many searches. They reached 2bn monthly users in 200 countries and territories by mid-2025.^[26]

When an AI answer appears, people click less. Pew Research found people clicked a link on 8% of visits with an AI summary, against 15% without one. They clicked a link inside the summary just 1% of the time.^[27]

Other studies agree. An AI Overview cut clicks on the top search result by 58%.^[28] Searches that end with no click at all rose from 56% to 69% by May 2025.^[29]

There is some recovery. One study found clicks on searches with AI answers fell during 2025, then partly bounced back in early 2026.^[30] But they remain well below searches without AI answers.

I PUBLISHERS FEEL IT FIRST

Google Search traffic to news and media sites fell 40.2% between July 2025 and July 2026. That came after a 21.9% fall the year before.^[31]

Big publishers report the damage directly. People Inc, which owns brands such as People and Allrecipes, lost 18% of its visits in early 2026. It blamed Google's AI Overviews, although its digital revenue still grew.^[32] Business Insider cut about a fifth of its staff, citing 'extreme traffic drops'.^[33]

Fewer visitors mean fewer ads to sell. Big publishers had 32–41% fewer ad slots to sell in the second quarter of 2026. AI search was one cause, alongside other events.^[34]

Google's own partner network shows a slow decline. Its reported revenue from ads on other websites fell below \$7bn in early 2026.^[35] Over the same period, Google's own reported search ad revenue grew to \$63.3bn a quarter.^[5]

QUARTER	GOOGLE NETWORK REVENUE	CHANGE ON A YEAR BEFORE
Q2 2024	\$7.44bn	
Q3 2024	\$7.55bn	
Q4 2024	\$7.95bn	
Q1 2025	\$7.26bn	
Q2 2025	\$7.35bn	-1%
Q3 2025	\$7.35bn	-3%
Q4 2025	\$7.83bn	-2%
Q1 2026	\$6.97bn	-4%
Q2 2026	\$7.30bn	-1%

GOOGLE'S REPORTED AD REVENUE FROM PARTNER WEBSITES • SOURCE: ALPHABET QUARTERLY RESULTS, 2024-2026 (BEFORE INFLATION)

Website owners are fighting back. In July 2025 Cloudflare began blocking AI crawlers by default for its customers.^[36] That gives publishers a way to charge AI firms, or at least to stop feeding them for free.

I MONEY MOVES TO PRIVATE DEALS

Advertisers are leaving open auctions. In 2025 the share of automated ad spend going through private deals jumped from 64.5% to 87.8%.^[37] By late 2025 it passed 92%.^[38]

Private deals cost more. An ad in a private deal cost \$7.15 per thousand views, against \$4.41 in the open market. That is about 1.6x.^[37] Advertisers pay the extra because they trust the audience more.

This sets up a key idea for our forecast. The open web gets cheaper per ad but worse per real person. Trusted platforms get dearer per ad but deliver more real people.

CHAPTER SUMMARY

The open web is losing both readers and advertisers at once. What remains is cheaper per ad, but more of it is read by machines.

The open web is shrinking from both ends.

CHAPTER CLOSE

WHAT NEXT?

The open web is shrinking

QUESTIONS TO ASK

- 1 How much of your traffic still comes from search?
- 2 Would your business survive a 40% fall in search visitors?
- 3 Which of your ad buys still go through open auctions?

04

PART FOUR

WHO REALLY SEES THE ADS

Bots are most of the traffic, but far fewer of the paid ad views.

04

How many paid ads are really seen by bots?

On protected buys, about 1% or less. On unprotected open-web buys, about 10–20%. The checks themselves are disputed.

SCOPE

Ad fraud

Verification

Trust

This part asks how many paid ads bots really see. The answer depends on whether anyone checks.

Protected buys

0.7% fraud

Unprotected buys

10.9% fraud

Open web before clean-up

20% invalid

A SHORT HISTORY OF AD FRAUD

Ad fraud is not new. In 2016 a scheme called Methbot faked 200–300m video ad views a day. It was estimated to earn \$3–5m a day.^[39]

In 2018 US prosecutors charged eight people over Methbot and a second scheme, 3ve. They used 1.7m infected computers and cost advertisers over \$36m, according to the charges.^[40]

Estimates of total losses are much larger. One forecaster put ad fraud at \$84bn in 2023, or 22% of online ad spend.^[41] A 2026 estimate put losses to invalid traffic at about \$63bn, an average of 8.5% across channels.^[42]

A related problem is 'made-for-advertising' sites, built only to show ads. In 2023 they took 15% of automated ad spend. That fell below 1% by late 2025.^[43]

SHOWN IS NOT PAID FOR

Here the dead internet theory and the ad market part ways. Most bots read pages to scrape or train AI. They are not the target of paid ads, and they are often filtered out.

When ads are bought with protection, fraud is low. One verification firm found 0.7% fraud on protected campaigns in 2024, against 10.9% on unprotected ones.^[44] Another found fraud on 0.5% of the open-web ads it checked in early 2026.^[45]

Ad space that nobody checks is much worse. A broader count found about 20% of open-web ads and 41% of app ads invalid before clean-up.^[46]

Checking firms say invalid views are removed from what advertisers pay for.^[47] So an ad shown to a bot is not always an ad paid for.

THE TRUST PROBLEM

The checks are not perfect. In 2025 researchers at Adalytics found ads from thousands of brands shown to known bots, despite paid checking.^[48]

The checking firms disputed this. DoubleVerify said the bot ads it reviewed were caught and not charged for.^[47] Neither side has published an audit of what advertisers actually paid.

This is why we treat our forecast for trusted platforms in Part VIII with care. It may be too low. It is also why proof that a viewer is human may become valuable, as Part VI explains.

I CHAPTER SUMMARY

Most bots never trigger a paid ad, and checked buys are mostly clean. But the checks are run by firms that sell them, and independent tests have found gaps.

Bots mostly read the web, not the ads. Mostly.

CHAPTER CLOSE

WHAT NEXT?

Who really sees the ads

QUESTIONS TO ASK

- 1 Do you know how much of your ad spend is checked for bots?
- 2 Who checks the checkers in your ad buying?
- 3 Would you pay more for ads with proof that a person saw them?

05

PART FIVE

AI AGENTS BECOME SHOPPERS

AI helpers are starting to browse, compare and buy for people.

05

What happens to advertising when software does the shopping?

Some ad money follows the AI helper instead of the person. Forecasts for 2030 range from 10% to 25% of US online shopping.

SCOPE

AI agents

Online shopping

New ad places

This part looks at AI helpers that shop for people. They could change who, or what, advertisers need to reach.

US online shopping by AI, 2030

10–25%

AI-referred retail visits

+693%

ChatGPT ads

\$1bn a year

HOW BIG COULD IT GET

An AI agent is a helper that can search, compare and sometimes buy for a person. Forecasters disagree a lot about how fast this will grow.

FORECASTER	WHAT THEY FORECAST	BY
Morgan Stanley	\$190–385bn of US online shopping, 10–20% of the total	2030
Bain	\$300–500bn, about 15–25% of US online shopping	2030
McKinsey	\$900bn–\$1tn of US consumer retail, \$3–5tn worldwide	2030
Gartner	More than \$15tn of business-to-business buying handled by AI agents	2028

FORECASTS FOR SHOPPING BY AI AGENTS • SOURCES: MORGAN STANLEY, BAIN, MCKINSEY 2025, GARTNER 2025

The numbers differ because they measure different things.^{[49][50][51][52]} Some count purchases an AI completes. Others count purchases an AI only influenced.

Early signs are real. AI-referred visits to US shopping sites rose 693% in the 2025 holiday season, and those visitors bought 31% more often.^[53] Salesforce reported that AI and agents influenced \$262bn of \$1.29tn in online holiday sales worldwide.^[54]

WHAT HAS LAUNCHED SO FAR

In September 2025 OpenAI let people buy directly inside ChatGPT.^[55] By March 2026 it was reported to be moving away from this, toward shopping apps run by retailers inside ChatGPT.^[56]

Google launched a shopping system for AI agents with Shopify, Target, Walmart and Wayfair. People can now check out inside Google's AI tools.^[57]

Amazon's shopping assistant, Rufus, was used by 250m shoppers in 2025. Amazon's forecast is that it will add over \$10bn a year in sales.^[58]

Payment firms are preparing too. Visa has completed AI-agent payments with over 100 partners. It expects millions of people to shop this way by the 2026 holidays.^[59]

ADS INSIDE AI ASSISTANTS

Ads are arriving inside AI assistants. OpenAI announced ChatGPT ads in January 2026. Prices started at \$60 per thousand views, then fell.^[60] ChatGPT ads reached a \$1bn yearly rate in about 200 days.^[61]

Forecasters expect US ad spend on AI search to grow from about \$2bn in 2026 to about \$26bn in 2029.^[62] Not everyone is joining. Perplexity, another AI search firm, dropped ads in late 2025.^[63]

AI is also changing how ads are made and bought. Meta's AI-run ad buying is above \$75bn a year, and over 9m small businesses use its AI ad tools.^[64]

Finally, AI agents are starting to be counted as audiences. One checking firm now sorts AI agent visits and studies nearly 2bn of them a month.^[65] But there are no industry rules yet for counting ads seen by AI agents.^[66]

CHAPTER SUMMARY

AI agents are early and unproven, but the biggest platforms are building for them. Advertisers will need to reach the software as well as the person.

The next customer may be a piece of software.

CHAPTER CLOSE

WHAT NEXT?

AI agents become shoppers

QUESTIONS TO ASK

- 1 Can an AI shopping helper find and understand your products?
- 2 Who in your team owns your plan for AI agents?
- 3 Would you pay for an AI agent to recommend you?

06

PART SIX

PROVING YOU ARE HUMAN GETS HARDER

The old tests fail, and the new ones raise hard questions.

06

How can a website know a visitor is a real person?

Less and less easily. AI now passes the old tests, so platforms are turning to logins, passkeys, ID checks and even eye scans.

SCOPE

Identity

Fraud

Regulation

This part looks at how websites tell people from bots. The old tests are failing, and the new ones raise hard questions.

AI pass rate, image CAPTCHA

100%

World ID verified people

about 18m

Passkeys in use

about 5bn

THE CAPTCHA IS BROKEN

For 20 years, websites have used puzzles called CAPTCHAs to tell people from bots. AI has beaten them.

In 2024 researchers at ETH Zurich solved 100% of Google's image puzzles with an AI model.^[67] A 2023 study found people solved text puzzles 50–84% of the time, while bots were close to 100% and faster.^[68]

In 2025 OpenAI's ChatGPT Agent clicked through Cloudflare's 'I am not a robot' check. It even explained that this step proves it is not a bot.^[69]

STRONGER CHECKS ARRIVE

Platforms are trying stronger checks. Reddit will ask suspicious accounts to prove they are human with passkeys or Face ID.^[70] Over 100m LinkedIn members have added a verification to their profile.^[71]

World, a company co-founded by Sam Altman, scans people's eyes to issue a 'World ID'. It had nearly 18m verified people by April 2026.^[72] Some courts have pushed back. Kenya's High Court ordered World to delete Kenyan eye-scan data.^[73]

Passkeys, which let you log in with your phone or face instead of a password, are spreading. About 5bn are in use.^[74]

Governments are adding their own checks. EU countries must offer a digital identity wallet by the end of 2026.^[75] Australia banned social media for under-16s, and 4.7m accounts were removed or restricted.^[76]

But checks can be dodged. When UK age checks began in July 2025, one VPN company reported a 1,400% jump in UK sign-ups. A VPN is a tool that hides where you are.^[77]

DEEPPAKES RAISE THE STAKES

AI can now fake faces and voices convincingly. In 2024 the engineering firm Arup lost about \$25.6m after staff joined a video call with deepfaked bosses.^[78]

Identity fraud using such tools is growing fast. One firm saw sophisticated fraud rise 180% worldwide in 2025.^[79] Deloitte forecasts US fraud losses from AI tools will reach \$40bn by 2027.^[80]

For advertisers this has one clear effect. A platform that already knows its users are real becomes more valuable. That is a key reason we expect the price gap between trusted platforms and the open web to widen after 2030.

CHAPTER SUMMARY

Proving you are human is getting harder, not easier. That makes logged-in platforms, which already know their users, more valuable to advertisers.

Proof of being human is the new scarce asset.

CHAPTER CLOSE

WHAT NEXT?

Proving you are human gets harder

PREDICTIONS

PREDICTION

39% CONFIDENCE • BY 2027

By the end of 2027, the groups that set ad-counting rules accept a digital proof that a viewer is human.

BASIS

Our judgement, not a model output. Fraud and AI agents put pressure on the Media Rating Council (MRC) and the Interactive Advertising Bureau (IAB).

TRIPWIRE

By the end of 2026, neither the MRC nor the IAB has started work on such a standard.

QUESTIONS TO ASK

- 1 How do you know your customers are real people?
- 2 Would your customers accept an ID check to see your content?
- 3 What would a fake-customer attack cost your business?



PART SEVEN

THE PRICE OF REACHING PEOPLE

The cost of reaching today's real customers, after inflation,
2026–2040.

07

How much more will it cost to reach the same real customers?

About 1.3x today's cost by 2040. In 8 out of 10 test runs it lands between 1.0x and 1.8x. Each sale costs about the same as today.

SCOPE

After inflation

Trusted platforms

Open web

Parts II to VI showed what is happening today. This part turns that evidence into a forecast. We built a model of supply and demand for real customers' attention, and ran it 5,000 times with different values.

2031

1.1x

2036

1.2x

2040

1.3x

On the demand side, ad budgets grow with the economy. It is forecast to grow about 3% a year to 2030^[81] and more slowly later^[82]. Budgets also grow if ad spending takes a bigger slice of the economy.

Some budget leaves when people pay to avoid ads, or when AI agents shop for them.

On the supply side, the number of real buyers grows slowly. But platforms can add ad spaces, and new places for ads keep appearing. Those extra spaces hold prices down.

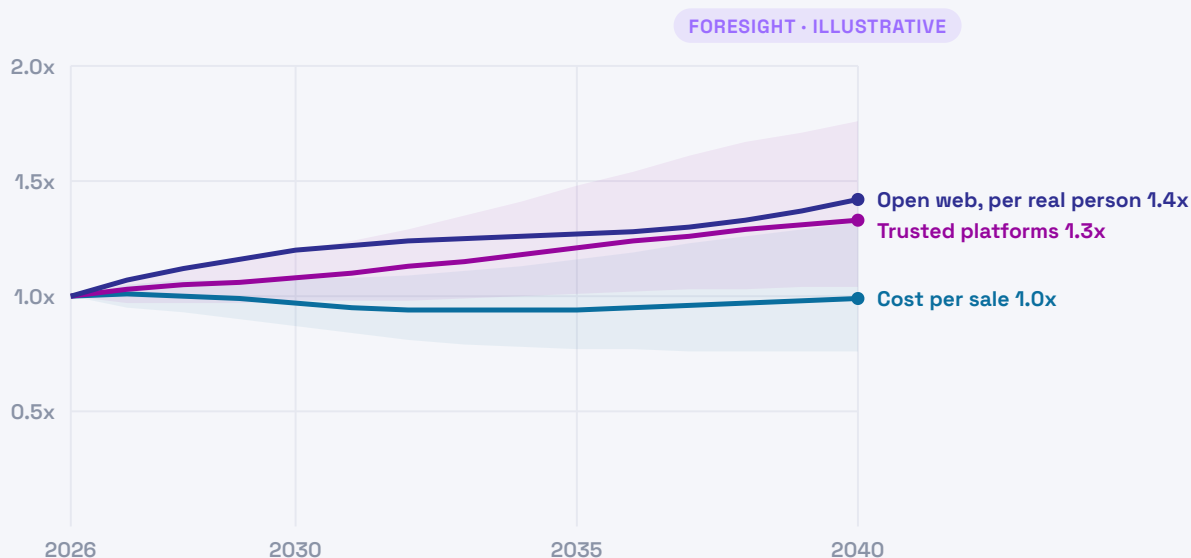
Here is the result for trusted platforms, where most ad money goes.

Reaching as many real customers there as in 2026 costs 1.1x as much in 2031, 1.2x in 2036 and 1.3x in 2040.^[83] That is about 2% a year above inflation.

Reaching today's customers costs about 1.3x as much by 2040

SOURCE: 311 INSTITUTE MODEL, 12 OCTOBER 2026 · AFTER INFLATION, 2026 = 1X · SHADED = 80% RANGE

COST AGAINST 2026



Each sale costs about the same as today, near 1.0x. AI picks better audiences and makes better ads, so more viewers buy. Meta's AI-run ad buying is already above \$75bn a year.^[64]

Reaching one real person on the open web costs 1.4x today's level by 2040. The price of each ad there barely moves, but more of those ads are seen by bots.

WHAT MOVES THE PRICE

FACTOR	SHARE OF UNCERTAINTY	2040 COST AT THE FACTOR'S LOW AND HIGH END
Ad spending as a share of the economy	11%	1.14x to 1.48x
New places for ads (AI answers, shops, TV, cars)	6%	1.19x to 1.46x
Cheap proof of being human closes the trusted—open gap	4%	1.18x if it happens (1 in 10)
Growth in people with money to spend	3%	1.22x to 1.42x
Time online, and how much of it carries ads	3%	1.24x to 1.41x
Recessions	3%	little change to the middle answer
Privacy limits and ad bans	3%	1.24x to 1.39x
Buying choices handed to AI agents	3%	1.27x to 1.46x
Share of spend on trusted platforms	3%	1.24x to 1.39x
People paying to avoid ads	2%	1.26x to 1.42x
AI savings spent on higher ad bids	1%	1.27x to 1.36x
Ad money following AI agents' choices	1%	1.27x to 1.36x
Platforms adding more ad spaces	1%	1.27x to 1.36x
Nine smaller factors together	4%	each under 0.1x
Model uncertainty and factors acting together	53%	the remainder

WHAT MOVES THE 2040 COST • SOURCE: 311 INSTITUTE MODEL, 12 OCTOBER 2026

The table shows how much each factor moves the 2040 answer. The biggest is whether ad spending keeps growing faster than the economy. The second is how fast new places for ads appear, such as AI answers, shop websites, internet TV and cars.

Handing shopping to AI matters less than you might expect. When an AI agent makes the choice, the ad money follows it there.

About half of the spread comes from factors acting together and from the model's own uncertainty, not from any one factor. We include it on purpose, so our range is not too narrow.

I A CHECK AGAINST HISTORY

As a check, we looked at past prices. Meta's average price per ad rose about 3.9% a year from 2017 to 2025, before inflation.^[84] US prices rose about 3.5% a year over the same years.^[85] So Meta's ads got only slightly dearer after inflation.

Our forecast of about 2% a year above inflation is faster than that recent record. Even our high case works out at about 4% a year.

Costs end above 2x in about 4 in 100 runs. They end above 3x in fewer than 1 in 1,000. They end below today's level in about 7 in 100.

I CHAPTER SUMMARY

Ad budgets grow with the economy and chase a slowly growing number of buyers. Platforms add AI-made ad spaces, and new places for ads appear. That keeps the price rise small.

A small rise, held down by new places for ads.

CHAPTER CLOSE

WHAT NEXT?

The price of reaching people

PREDICTIONS

PREDICTION

61% CONFIDENCE • BY 2031

By 2031, reaching one real person on the open web costs at least 1.2x what it did in 2026, after inflation.

BASIS

Ad money leaves the open web faster than people do. More of its visitors are bots.

TRIPWIRE

Open-web ad prices fall after inflation for two years running while bot counts stay flat.

PREDICTION

58% CONFIDENCE • BY 2036

By 2036, reaching as many real customers on trusted platforms as in 2026 costs at least 1.2x as much, after inflation.

BASIS

Ad budgets grow with the economy, but the number of real buyers grows slowly.

TRIPWIRE

World ad spending falls below 0.90% of world GDP in any year before 2030.

CHAPTER CLOSE

WHAT NEXT?

The price of reaching people

PREDICTIONS

PREDICTION

56% CONFIDENCE • BY 2036

By 2036, an ad on a trusted platform costs more than 1.8x an open-web ad. Today it is about 1.6x, using private deals as a stand-in.

BASIS

Money flows to trusted platforms while real visitors to the open web shrink. The gap dips to about 1.5x around 2030 first.

TRIPWIRE

The gap is below 1.4x in 2033.

QUESTIONS TO ASK

- 1 Do you pay for people seeing your ads, or for sales?
- 2 What happens to your plan if ad spending keeps growing faster than the economy?
- 3 Which new places for ads, such as AI answers, are you testing now?



PART EIGHT

WHO SEES YOUR ADS BY 2040

Ads shown that no person sees, 2026–2040.

08

How many ads will no person ever see?

About 20% of all ads shown by 2040. On the open web it is 48%. On trusted platforms it is about 9%.

SCOPE

Ads shown

Trusted platforms

Open web

About 20% of all ads shown in 2040 will be seen by no person. In 8 out of 10 runs it lands between 15% and 27%. Our model puts it at about 10% today.^[83]

All ads, 2040

20%

Open web

48%

Trusted

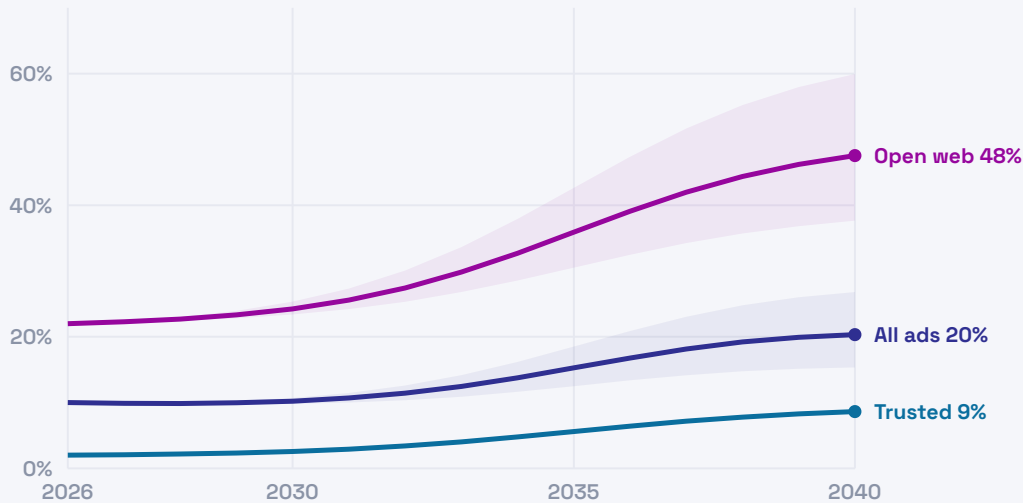
9%

One in five ads shown reaches no person by 2040

SOURCE: 311 INSTITUTE MODEL, 12 OCTOBER 2026 • SHARE UNSEEN, %

UNSEEN SHARE

FORESIGHT • ILLUSTRATIVE



ADS SEEN, NOT WEB VISITS

Our figure is much lower than the share of web traffic made by bots. That is because we count ads shown, not web visits. As Part IV showed, most bots never trigger a paid ad.

The open web is where bots and paid ads meet most. It is shrinking as AI answers take the clicks, and more of what is left is read by bots and AI agents. In our high case, bots outnumber people on the open web by 2037.

On trusted platforms, about 9% of ads shown have no human viewer by 2040. Some are AI agents that advertisers are charged for. Others are fakes that get past the checks. Because checks are disputed, this figure may be low.

The two trends pull in opposite directions. The open web gets cheaper per ad but more wasteful. Trusted platforms get dearer per ad but stay mostly human. By 2040 a trusted-platform ad costs 2.0x an open-web ad. Measured per real person reached, the gap barely moves, from about 1.6x today to 1.5x.

CHAPTER SUMMARY

Bots make much of web traffic, but most never see a paid ad. The open web fills with bots and AI readers, while trusted platforms stay mostly human.

More bots do not mean more paid ads seen.

CHAPTER CLOSE

WHAT NEXT?

Who sees your ads by 2040

QUESTIONS TO ASK

- 1 How much of your open-web spend reaches a real person?
- 2 Would you pay for ads that only AI agents see?
- 3 What would proof that a viewer is human be worth to you?



PART NINE

TESTING THE NUMBERS

Every number was attacked before we kept it.

09

Why believe an answer of 1.3x?

Because three rounds of review attacked it. Our first answer was 2.9x. The reviews cut it by more than half.

SCOPE

Maths

Evidence

The future

Our first model said 2.9x. Three rounds of review changed it. Each step is shown so you can judge what survived.

First answer

2.9x

After round 1

1.5x

After round 2

1.7x

Final

1.3x

THREE ROUNDS OF REVIEW

ROUND	WHAT WE FOUND AND FIXED	2040 ANSWER
1a. Checking the maths	Prices rose about 8% a year after inflation, with no limit. Platforms adding more ads was ignored. Bots' share of web visits was treated as their share of paid ads.	2.9x to 1.5x
1b. Checking the evidence	AI was assumed to make 40% of buying choices. Forecasts for 2030 say 10–25% of US online shopping. 40% moved near the top of our 8–45% range, not the middle.	part of the step above
1c. Testing the future	On an AI-made web there are no fixed ad spaces. Platforms decide how many ads to show. So the scarce thing is a real buyer, not an ad space.	part of the step above
2. Adding missing factors	Added the cost of checking viewers are real, privacy limits, recessions, AI shopping helpers and people paying to avoid ads.	1.5x to 1.7x
3. Independent code review	Some costs were counted twice. Some ad money never moved when buyers left. New places for ads were missing. Uncertainty about the model itself was added.	1.7x to 1.3x

THREE ROUNDS OF REVIEW • SOURCE: 311 INSTITUTE REVIEW, 12 OCTOBER 2026

Where reviewers disagreed, we tested both views. One reviewer argued for 3.3x. That needed three things at once:

No extra ads per page. Ad spending up by a third. A third of buyers paying to skip ads.

We tested all three together and got 2.6x. Results above 3x came up in fewer than 1 in 1,000 runs.

WHAT THE MODEL CANNOT SEE

No one yet measures how often AI makes the final choice in a purchase. Forecasts for 2030 range from 10% to 25% of US online shopping.^[86] This is our biggest unmeasured input,

though it moves the 2040 answer by at most 0.2x.

If proving you are human became cheap and common, trusted platforms and the open web would look alike. Then the price gap would close. Fake AI identities make this less likely. We give it a 1 in 10 chance.

Deepfakes or stolen identities could fool checks and fill trusted platforms with fakes. More people may also be paying to avoid ads before any platform reports it.

Finally, the checks on who sees ads are run mostly by firms that sell them. If independent audits found much more bot traffic, our figures for trusted platforms would rise.

CHAPTER SUMMARY

The first answer assumed too much AI shopping, rising ad spending and no response from platforms. Each assumption was replaced with evidence or a range.

Three rounds of review, one answer we can defend.

CHAPTER CLOSE

WHAT NEXT?

Testing the numbers

QUESTIONS TO ASK

- 1 Which of your own forecasts has been attacked by someone else?
- 2 Where does your plan assume platforms will not react?
- 3 Which number in your plan has nobody actually measured?

10

PART TEN

WHAT TO DO NOW

Moves that help whichever way the numbers fall.

10

What should anyone who pays for advertising do now?

Pay for sales, not views. Move toward trusted platforms and your own customers. Get into AI answers early.

SCOPE

Advertisers

Publishers

Investors

Reaching buyers gets only a little dearer, about 2% a year above inflation. The change in where buyers can be found is much bigger. It rewards those who move early.

Owner

Chief marketing officer

Review

Once a year, against the tripwires

SIX MOVES FOR ADVERTISERS

- 1. Pay for sales, not views.** Each sale will cost about the same as today, even as views get dearer.
- 2. Move spend to trusted platforms and your own customer lists.** The open web looks cheap, but more of its ads are seen by bots.
- 3. Test ads inside AI assistants now.** Their ad rules and prices are still being set, as ChatGPT's falling prices show.
- 4. Make your products easy for AI shopping helpers to find.** Keep product listings complete and accurate. By 2040 AI agents may make about a quarter of buying choices, with 8 in 10 runs between 15% and 35%.
- 5. Budget for checking that viewers are real.** Our model puts this at about 2% of ad spend today. By 2040 it is about 8%, with a range of 5–12%.
- 6. Check the tripwires each year.** Each prediction in this report has an early warning sign.

FOR PUBLISHERS, PLATFORMS AND INVESTORS

Publishers should build logged-in audiences and sell them through private deals. Visitors from search are falling fast, and more open-web ads are seen by bots.

Platforms that can prove their users are real hold the scarce asset. They can raise prices while adding ads, as Meta does today.

Time spent in AI apps was projected to double between early 2025 and early 2026.^[87] That makes AI assistants a fast-growing place for ads.

Investors should watch the gap between trusted platforms and the open web. Firms that rely on open-web traffic face a shrinking market. Firms that check identity or verify audiences face a growing one.

WHAT TO WATCH EACH YEAR

Watch ad spending as a share of the economy, and the price gap between private deals and the open web.

Watch Meta's price per ad, Google's partner-site ad revenue and the number of ads inside AI assistants.

Watch how much shopping AI agents complete, and how many people use a digital proof that they are human.

CHAPTER SUMMARY

The price rise is small, but the change in where real buyers can be found is large. The winners pay for sales and reach trusted buyers early.

Pay for sales, reach trusted buyers, test AI answers.

CHAPTER CLOSE

WHAT NEXT?

What to do now

PREDICTIONS

PREDICTION

55% CONFIDENCE • BY 2030

By 2030, ads inside AI assistants are one of the five biggest ad channels by spend, alongside social, search, shopping sites and TV.

BASIS

Our judgement, not a model output. Time in AI apps roughly doubled in a year, and ChatGPT ads reached \$1bn a year in about 200 days.

TRIPWIRE

AI assistant ads are below 3% of world digital ad spend in 2029.

QUESTIONS TO ASK

- 1 Which budget lines move first if open-web ads are wasted on bots?
- 2 Who in your team plans for reaching AI agents?
- 3 What would you stop paying for if reaching each buyer cost twice as much?

I STRATEGIC SUMMARY

The dead internet theory is right about the direction and wrong about the size. Reaching today's real customers on trusted platforms costs about 1.3x as much by 2040, after inflation. It does not cost several times more.

Bots make most web traffic and AI writes much new content, but people still do the reading and buying. Most bots never see a paid ad.

AI lets platforms create more ad space for real people, and new places for ads keep appearing. That keeps the rise small.

By 2040, about 20% of all ads shown reach no person. On the open web it is 48%. Cheap open-web ads are less of a bargain than they look.

Pay for sales, reach trusted buyers and treat AI answers as the next big place for ads. Check the tripwires each year.

ASSUMPTIONS & CAVEATS

What to bear in mind

The judgements that most affect how this report should be read, highest impact first. The full set — significant assumptions, market-boundary decisions, source limitations and areas of uncertainty — is set out in the Annex under Assumptions and Caveats.

HIGH IMPACT

The model's own uncertainty is large

About half of the spread in results comes from uncertainty in the model's formula, not from any one factor.

HIGH IMPACT

Bots can reach trusted deals too

A 2025 study found ads shown to known bots despite paid checking. Most bot data comes from firms that sell checks. Our 9% may be low.

MEDIUM

The price gap rests on one benchmark

The 1.6x starting gap comes from one ANA study of private deals against the open market. We use it as a stand-in for trusted platforms.

MEDIUM

No one measures AI shopping yet

We test 8–45% of buying choices by 2040, because nobody measures it yet. It moves the 2040 cost by up to 0.2x.

311

SECTION

ANNEX

NOTES AND METHOD

How this was done. All future prices are after inflation, so 2040 compares directly with 2026. Figures quoted from companies are as reported, before inflation. Parts II to VI draw on published research, company filings and trade reports. Each figure is dated and linked in the source ledger. Our model has 20 factors and 2 one-off events. The events are recessions and a 1 in 10 chance that cheap proof of being human closes the trusted—open gap. We ran the model 5,000 times. Each run picked a value for every factor from a range based on evidence. Factors that tend to move together were linked. Our ranges show where 8 out of 10 runs landed. We added extra uncertainty for the model itself, so the ranges are not too narrow. Three rounds of review attacked the maths, the evidence and our view of the future. One review checked the model's code independently. Every number after 2026 is a forecast. Each of the five forecasts in boxes has a likelihood, a reason and an early warning sign. This is analysis for decision-makers, not investment or legal advice.

ASSUMPTIONS AND CAVEATS

This section states, in full, the assumptions the findings rest on, where the market lines were drawn, the limits of the evidence base, and where the findings are genuinely unresolved — so the reader can assess the conclusions independently. Any sub-section with nothing material to declare says so.

AREAS OF UNCERTAINTY

- Ranges show where 8 out of 10 of 5,000 runs landed. About 12% extra uncertainty is added for the model itself by 2040.

MARKET-BOUNDARY DECISIONS

- The whole world, all digital ads, people with money to spend.
- Ads shown, not web traffic.

SIGNIFICANT ASSUMPTIONS

- World economy grows 2.1–3.0% a year after inflation, per the IMF and OECD.
- By 2040, ad spending as a share of the economy is 0.9–1.3x today's level.
- AI agents make 8–45% of buying choices by 2040. The model's middle result is about a quarter.

SOURCE LIMITATIONS

- There is no past data for the trusted-versus-open split.
- Regions are not modelled separately. North America and Western Europe may run above these figures.

TRUST BANDS**PRIMARY**

Original / authoritative source.

CORROBORATED

Confirmed from 2+ independent sources.

SINGLE-SOURCE

One source, uncorroborated — hold lightly.

UNVERIFIED

Authenticity or accuracy in question — treat with caution.

FORESIGHT

311 projection / inference — labelled, not fact.

SOURCE LEDGER

The report's headline figures, each traced to its origin, dated and tiered, with the full per-claim ledger shipping in the companion data.

#	CLAIM & SOURCE	DATE	TIER
01	Global ad spend forecast at \$1.34tn for 2026, up 11.9%, then \$1.46tn in 2027 and \$1.57tn in 2028 (forecast) WARC GLOBAL AD FORECAST, VIA ADVANCED TELEVISION	2026-10	SINGLE-SOURCE
02	2026 ad spend by channel: social \$394.6bn, search \$295.7bn, retail media \$202.1bn, video on demand \$48.4bn (forecast) WARC GLOBAL AD FORECAST, VIA ADVANCED TELEVISION	2026-10	SINGLE-SOURCE
03	Digital channels took 81.6% of the global ad market in 2025, including streaming TV and digital outdoor (reported) WPP MEDIA, VIA STORYBOARD18	2025-06	SINGLE-SOURCE
04	Alphabet, Amazon and Meta take 59.7% of ad spend outside China in 2026, rising to 61.5% in 2028 (forecast) WARC GLOBAL AD FORECAST, VIA ADVANCED TELEVISION	2026-10	SINGLE-SOURCE
05	Google ad revenue \$81.63bn in Q2 2026: Search \$63.27bn, YouTube \$11.06bn, Network \$7.30bn (reported) ALPHABET Q2 2026 RESULTS, SEC FILING	2026-07	PRIMARY
06	Amazon ad revenue passed \$68bn in 2025 and was \$19.8bn in Q2 2026, up 26% (reported) MARKETING DIVE AND PPC LAND, REPORTING AMAZON RESULTS	2026-07	CORROBORATED
07	Meta reported 2025 ad revenue of \$196.18bn, up 22%, with impressions up 12% and price per ad up 9% (reported) META 2025 RESULTS, SEC FILING	2026-01	PRIMARY

08	Meta ad impressions and average price per ad, year-on-year change by quarter, Q1 2025 to Q2 2026 (reported) META QUARTERLY RESULTS	2026-07	PRIMARY
09	Ad spend was 0.98% of world GDP in 2025, forecast 1.1% by 2030, on WPP Media's measure (reported and forecast) WPP MEDIA, VIA AXIOS	2026-06	SINGLE-SOURCE
10	US ad spend ranged from 1.2% to 3.0% of GDP between 1919 and 2007, mostly near 2% (reported) DOUGLAS GALBI, US ADVERTISING EXPENDITURE DATA	2008-09	PRIMARY
11	About 4.4bn people are in the world's middle and rich classes (reported) WORLD DATA LAB	2025-07	SINGLE-SOURCE
12	About 6bn people used the internet in 2025, roughly three-quarters of the world, with 2.2bn still offline (reported) INTERNATIONAL TELECOMMUNICATION UNION	2025-11	PRIMARY
13	A forum post titled 'Dead Internet Theory: Most Of The Internet Is Fake' appeared in January 2021 and was covered by The Atlantic that year BOING BOING	2021-09	CORROBORATED
14	Sam Altman said he never took the theory seriously but that there are now 'a lot of LLM-run twitter accounts' FUTURISM	2025-09	CORROBORATED
15	Merriam-Webster named 'slop', meaning low-quality AI-made content, its 2025 Word of the Year EURONEWS	2025-12	CORROBORATED
16	Bad bots were 23.6% of web traffic in 2013 and 18.6% in 2015 (reported) IMPERVA BAD BOT REPORT 2024	2024-04	PRIMARY
17	Bots made 53% of web traffic in 2025 (bad bots 40%), 51% in 2024 (37%) and 49.6% in 2023 (32%) (reported) THALES IMPERVA BAD BOT REPORTS 2024-2026	2026-04	PRIMARY

18	Bots made 57.2% of requests for web pages on Cloudflare's network on 8 June 2026 (reported) CLOUDFLARE RADAR, VIA HELLO PARTNER	2026-06	CORROBORATED
19	In July 2025 Anthropic's crawler made about 38,000 page requests per visit it sent back, OpenAI's about 1,091 and Google's 5.4 (reported) CLOUDFLARE	2025-08	PRIMARY
20	AI-driven traffic grew 187% during 2025, and automated traffic grew 8 times faster than human traffic (reported) HUMAN SECURITY	2026-03	PRIMARY
21	AI-written articles overtook human-written ones in November 2024 and have stayed near half since (measured with an AI detector) GRAPHITE	2025-10	PRIMARY
22	About 35% of new websites published by mid-2025 were AI-made or AI-assisted (measured with an AI detector) IMPERIAL COLLEGE, STANFORD AND INTERNET ARCHIVE RESEARCHERS	2026-04	PRIMARY
23	NewsGuard has found 3,749 AI content-farm news sites in 16 languages (reported) NEWSGUARD AI TRACKING CENTER	2026-06	PRIMARY
24	More than 50% of new music uploads to Deezer were fully AI-made in June 2026, yet AI music was only 1–3% of streams (reported) DEEZER	2026-07	PRIMARY
25	The claim that 90% of online content may be AI-made by 2026 is an expert estimate quoted by Europol, not a measurement EUROPOL INNOVATION LAB, FACING REALITY	2022-04	PRIMARY
26	Google AI Overviews reached 2bn monthly users in 200 countries and territories (reported) TECHCRUNCH, REPORTING ALPHABET	2025-07	CORROBORATED

27	People clicked a link on 8% of Google visits with an AI summary, against 15% without one, and on a link inside the summary 1% of the time (reported)	2025-07	PRIMARY
	PEW RESEARCH CENTER		
28	An AI Overview cut clicks on the top search result by 58%, from 7.3% to 1.6% (reported)	2026-02	PRIMARY
	AHREFS		
29	Searches ending with no click rose from 56% to 69% by May 2025 (reported)	2025-07	SINGLE-SOURCE
	SIMILARWEB, VIA SEARCH ENGINE ROUNDTABLE		
30	Organic clicks on searches with an AI Overview fell from 3.19% to 1.31% during 2025, then recovered to 2.36% by February 2026 (reported)	2026-04	PRIMARY
	SEER INTERACTIVE		
31	Google Search traffic to publishers fell 40.2% between July 2025 and July 2026, after a 21.9% fall the year before (reported)	2026-09	SINGLE-SOURCE
	CHARTBEAT, VIA SEARCH ENGINE JOURNAL		
32	People Inc sessions fell 18% in Q1 2026, blamed mainly on Google AI Overviews, while digital revenue rose 8% (reported)	2026-05	PRIMARY
	IAC Q1 2026 RESULTS, SEC FILING		
33	Business Insider cut about 21% of staff, citing 'extreme traffic drops outside of our control' (reported)	2025-05	CORROBORATED
	REUTERS, VIA YAHOO FINANCE		
34	Premium publisher ad requests fell 32–41% in Q2 2026, partly because of AI search and partly because of other events (reported)	2026-07	SINGLE-SOURCE
	OZONE, VIA DIGIDAY		
35	Google Network revenue by quarter, Q2 2024 to Q2 2026, from Alphabet's results (reported)	2026-07	PRIMARY
	ALPHABET QUARTERLY RESULTS		

36	Cloudflare began blocking AI crawlers by default on 1 July 2025 and tested charging them per crawl (reported) MIT TECHNOLOGY REVIEW	2025-07	CORROBORATED
37	Private deals cost \$7.15 per thousand ads against \$4.41 on the open market, and their share of spend rose from 64.5% to 87.8% (reported, 2025) ANA PROGRAMMATIC BENCHMARK	2025-08	PRIMARY
38	Over 92% of median programmatic spend now goes through private and curated deals (reported) ANA Q4 2025 PROGRAMMATIC BENCHMARK	2026-02	PRIMARY
39	The Methbot fraud was estimated to earn \$3–5m a day by faking 200–300m video ad views daily (estimate) FORTUNE, REPORTING WHITE OPS	2016-12	CORROBORATED
40	US prosecutors charged eight people over Methbot and 3ve, which used 1.7m infected computers and cost advertisers over \$36m (reported) US DEPARTMENT OF JUSTICE	2018-11	PRIMARY
41	Ad fraud was estimated to cost \$84bn in 2023, 22% of online ad spend, rising to \$172bn by 2028 (estimate) JUNIPER RESEARCH, VIA SEARCH ENGINE LAND	2023-09	CORROBORATED
42	About \$63bn of ad spend was lost to invalid traffic, an average invalid rate of 8.5% across channels (estimate) LUNIO, VIA ANA	2026-01	CORROBORATED
43	Made-for-advertising sites took 21% of impressions and 15% of programmatic spend in 2023, falling to 0.39% of spend by Q3 2025 (reported) ANA, VIA MEDIAPOST AND ANA	2025-11	CORROBORATED
44	Ad fraud was 0.7% on campaigns protected by IAS against 10.9% on unprotected ones in 2024 (reported) IAS MEDIA QUALITY REPORT, 20TH EDITION	2025-05	PRIMARY

45	Fraud and sophisticated invalid traffic on open-web ads measured by DoubleVerify was 0.5% in Q1 2026 (reported) DOUBLEVERIFY BENCHMARKS, VIA PPC LAND	2026-07	SINGLE-SOURCE
46	About 20% of open-web ads and 41% of app ads were invalid before filtering, Q2 2026 (reported) PIXALATE Q2 2026 BENCHMARK	2026-08	SINGLE-SOURCE
47	DoubleVerify said the bot ads it reviewed were removed from billable counts, and that an ad shown to a bot is not always paid for DOUBLEVERIFY	2025-04	SINGLE-SOURCE
48	Ads from thousands of brands were shown to known bots despite paid verification, 2019–2025 (vendor research, disputed) ADALYTICS, VIA ADEXCHANGER	2025-03	SINGLE-SOURCE
49	AI shopping agents could handle \$190–385bn, or 10–20%, of US online shopping by 2030 (forecast) MORGAN STANLEY	2025-12	PRIMARY
50	Agentic commerce could be \$300–500bn, about 15–25% of US online shopping, by 2030 (forecast) BAIN & COMPANY	2025-12	PRIMARY
51	Agentic commerce could reach \$900bn–\$1tn of US consumer retail by 2030, and \$3–5tn worldwide (forecast) MCKINSEY	2025-10	PRIMARY
52	AI agents will handle more than \$15tn of business-to-business buying by 2028 (forecast) GARTNER, VIA DIGITAL COMMERCE 360	2025-11	CORROBORATED
53	AI-referred traffic to US retail sites rose 693% in the 2025 holidays and converted 31% better than other traffic (reported) ADOBE	2026-01	PRIMARY

54	AI and agents influenced \$262bn of \$1.29tn global online holiday sales in 2025 (reported) SALESFORCE	2026-01	PRIMARY
55	OpenAI launched Instant Checkout in ChatGPT in September 2025 with Stripe's Agentic Commerce Protocol FORTUNE	2025-09	CORROBORATED
56	By March 2026 OpenAI was reported to be moving from in-chat checkout to retailer apps inside ChatGPT SHOPIFREAKS	2026-03	SINGLE-SOURCE
57	Google launched a shopping protocol for AI agents with Shopify, Target, Walmart and Wayfair, and checkout inside AI Mode and Gemini THE REGISTER	2026-01	CORROBORATED
58	250m shoppers used Amazon's Rufus assistant in 2025, and Amazon expects it to add over \$10bn a year in sales (reported and forecast) FORTUNE	2025-11	CORROBORATED
59	Visa has completed agent-made payments with over 100 partners and expects millions of people to buy through AI agents by the 2026 holidays VISA	2025-12	PRIMARY
60	ChatGPT ads were announced in January 2026, tested from February, and started at a \$60 price per thousand views before falling (reported) SILICONANGLE AND THE NEXT WEB	2026-06	CORROBORATED
61	ChatGPT ads reached a \$1bn annual run rate in about 200 days (reported) AI NEWS	2026-09	SINGLE-SOURCE
62	Forecast US ad spend on AI search at \$2.08bn in 2026 and \$25.93bn in 2029, 13.6% of search ad spend (forecast) EMARKETER	2026-01	PRIMARY

63	Perplexity phased out ads in late 2025, saying it is 'in the accuracy business'	2026-02	SINGLE-SOURCE
	TECHSPOT		
64	Meta's AI-run ad buying (Advantage+) is above a \$75bn annual run rate, and over 9m small businesses use its AI creative tools, Q2 2026 (reported)	2026-07	CORROBORATED
	META Q2 2026 EARNINGS CALL, VIA MEDIAPOST		
65	DoubleVerify launched a service that sorts AI agent traffic and analyses nearly 2bn agent interactions a month	2025-11	PRIMARY
	DOUBLEVERIFY		
66	There are no industry rules yet for counting ads seen by AI agents	2026-08	SINGLE-SOURCE
	PUBLIR		
67	ETH Zurich researchers solved 100% of Google reCAPTCHA v2 image tests with an AI model (reported)	2024-09	PRIMARY
	PLESNER, VONTOBEL AND WATTENHOFFER, ARXIV		
68	In a 1,400-person study, people solved distorted-text CAPTCHAs 50–84% of the time while bots were near 100% and faster (reported)	2023-08	CORROBORATED
	UC IRVINE STUDY, VIA TECHXPLORE		
69	OpenAI's ChatGPT Agent clicked through Cloudflare's 'I am not a robot' check	2025-07	CORROBORATED
	STORYBOARD18, CITING ARS TECHNICA		
70	Reddit will ask suspicious accounts to prove they are human with passkeys or Face ID	2026-03	CORROBORATED
	ENGADGET		
71	Over 100m LinkedIn members have added a verification (reported)	2025-12	PRIMARY
	LINKEDIN		
72	World ID had nearly 18m verified people in 160 countries, with partners including Tinder, Razer, Zoom, Docusign and Okta (reported)	2026-04	PRIMARY
	WORLD (TOOLS FOR HUMANITY)		

73	Kenya's High Court ordered World to delete Kenyan biometric data and stop collecting it THE BLOCK	2025-05	CORROBORATED
74	About 5bn passkeys are in use, and 75% of people surveyed in 10 countries have turned one on (estimate) FIDO ALLIANCE	2026-05	SINGLE-SOURCE
75	EU member states must offer a Digital Identity Wallet by the end of 2026 EUROPEAN COMMISSION	2024-05	PRIMARY
76	Australia's under-16 social media ban began on 10 December 2025, and 4.7m accounts were removed or restricted (reported) PRIME MINISTER OF AUSTRALIA	2026-01	PRIMARY
77	UK online age checks began on 25 July 2025, and Proton VPN reported a 1,400% jump in UK sign-ups (company claim) THE REGISTER	2025-07	CORROBORATED
78	Engineering firm Arup lost about \$25.6m after a deepfake video call (reported) CNN	2024-05	CORROBORATED
79	Sophisticated identity fraud rose 180% worldwide in 2025, with UK deepfake attempts up 94% (reported) SUMSUB, VIA FINANCIAL IT	2025-12	SINGLE-SOURCE
80	US fraud losses enabled by generative AI are forecast to rise from \$12.3bn in 2023 to \$40bn by 2027 (forecast) DELOITTE CENTER FOR FINANCIAL SERVICES	2024-05	PRIMARY
81	World real GDP growth about 3% a year to 2030 (forecast) IMF WORLD ECONOMIC OUTLOOK, APRIL 2026	2026-04	PRIMARY
82	Long-run world real growth about 2.7% a year in the early 2030s and 2.1% in the early 2040s (forecast) OECD LONG-RUN SCENARIOS	2025-09	PRIMARY

83

Cost, cost per sale and audience forecasts 2026–2040, after inflation: 20 factors, 2 one-off events, 5,000 runs

311 INSTITUTE MODEL, 12 OCTOBER 2026

2026-10

FORESIGHT

84

Meta's average price per ad rose about 3.9% a year from 2017 to 2025, before inflation (reported)

META ANNUAL RESULTS

2026-01

PRIMARY

85

US consumer prices rose about 3.5% a year from 2017 to 2025 (reported)

US BUREAU OF LABOR STATISTICS, CPI-U

2026-01

PRIMARY

86

AI agents forecast to handle 10–20% (Morgan Stanley) and 15–25% (Bain) of US online shopping by 2030 (forecast)

DIGITAL COMMERCE 360

2025-12

CORROBORATED

87

Time in generative AI apps was 17.2bn hours in H1 2025, projected at 36bn hours in H1 2026 (reported and forecast)

SENSOR TOWER STATE OF AI 2026

2026-06

SINGLE-SOURCE

TERMS & CONDITIONS

This report is published by the 311 Institute for information only. It is made available to clients and to the general public alike, and is not advice of any kind.

No advice. Nothing in this report constitutes legal, financial, investment, tax or other professional advice, nor any recommendation, offer or solicitation to buy, sell or hold any security, instrument or asset, and it takes no account of any reader's particular circumstances. Any action taken on the basis of this report is taken entirely at the reader's own risk, and independent professional advice should be obtained before acting.

Foresight, not fact. This report contains analysis, scenarios and forward-looking judgements about uncertain futures. Projections, ranges and scenarios are informed estimates, not statements of fact or guarantees, and actual events may differ materially. Forward-looking statements speak only as at the date of publication and are not updated.

No liability. To the fullest extent permitted by law, the 311 Institute, its founder Matthew Griffin, and their officers, employees, agents and associates accept no liability of any kind — whether in contract, tort (including negligence), for misrepresentation, or otherwise — for any loss or damage whatsoever (including direct, indirect, special, consequential or economic loss) arising from any use of, or reliance on, this report or its contents by any person, whether a client or a member of the public. No representation or warranty, express or implied, is given as to the report's accuracy, completeness, currency or fitness for any purpose. Nothing in these terms excludes any liability that cannot be excluded by law.

Reproduction and intellectual property. All content, frameworks, methods and marks in this report are the property of the 311 Institute and its licensors. No part of this report may be reproduced, copied, stored, distributed, published or otherwise used, in whole or in part, without the prior written permission of the 311 Institute. Third-party names, standards, products and marks are the property of their respective owners and are used for identification only.

Governing law. These terms, and any dispute or claim arising out of or in connection with them or this report, are governed by the law of England and are subject to the exclusive jurisdiction of the English courts. © 2026 311 Institute. All rights reserved.

311 INSTITUTE · INTELLIGENCE UNIT

To help humanity build a future where people and planet thrive, and where the benefits of human progress are shared by everyone — not just the few.



enquiries@311institute.com · 311institute.com · London

© 2026 311 Institute · All rights reserved.