

• TOP 5 • MASTERZ × IOTA HACKATHON 2026

IOTA WEB GUARDIAN

Turns **AI scraping** into **AI licensing**.

A verifiable identity + micropayment layer in front of every page. AI agents pay per fetch. Creators get paid in real time on IOTA.

PIPELINE

401 → VP → 402 → Paid

SETTLEMENT

2.8 s first • 50 ms cached

SURFACE

WordPress • drop-in

CLOUDFLARE RADAR • 2025

// Google scrapes **18 pages** for every **1 visitor** it sends back. ChatGPT scrapes **1,500**. Claude scrapes **60,000**.

The economic model of the open web — you give us content, we send you readers — is **dead**.

AI doesn't send readers. AI keeps them.

Traffic Apocalypse — already happened in 2025.

Publishers have lost **20% to 90%** of traffic and revenue in 12 months. This is not a forecast.

-33%

Global publisher traffic from Google

-600M

Monthly news visits lost
2.3 B → 1.7 B

-60%

Small publishers
(1k–10k daily views, 2 yrs)

SMALL · 1k–10k/day	MEDIUM · 10k–100k/day	LARGE · 100k+/day
-60%	-47%	-22%
BY SEGMENT · 2-YEAR DROP		
PUBLISHER		DROP
Stereogum ad revenue		-70%
Founder cited AI Overviews as primary cause (Nov 2025)		
Business Insider organic search		-55%
HuffPost search referrals		-50%
Chegg non-subscriber traffic		-49%
Dictionary.com visits 34M→21M		-38%

What it means in dollars.

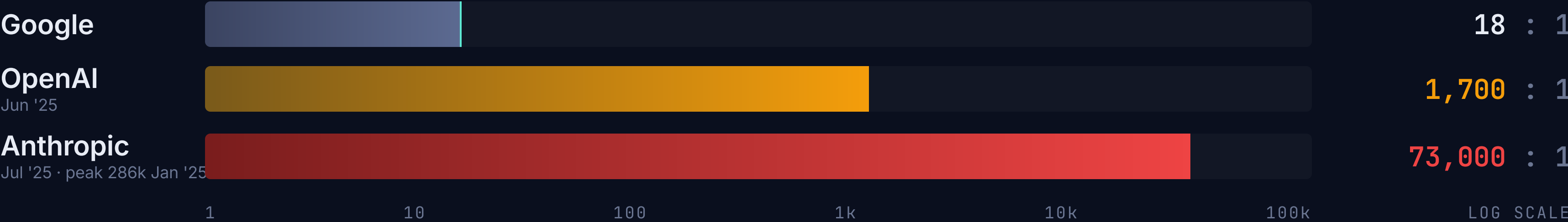
Traffic loss translates almost 1 : 1 into revenue loss.



Traffic doesn't vanish. It's absorbed by AI. Revenue moves with it.

The crawl-to-click gap.

AI bots take **everything** and return **nothing**. Pages scraped per 1 visitor sent back:



8.7%

of all HTML web traffic now from AI crawlers

+225%

AI bot scraping growth YoY (Akamai)

30%

of AI bots ignore robots.txt (Q4 '25)

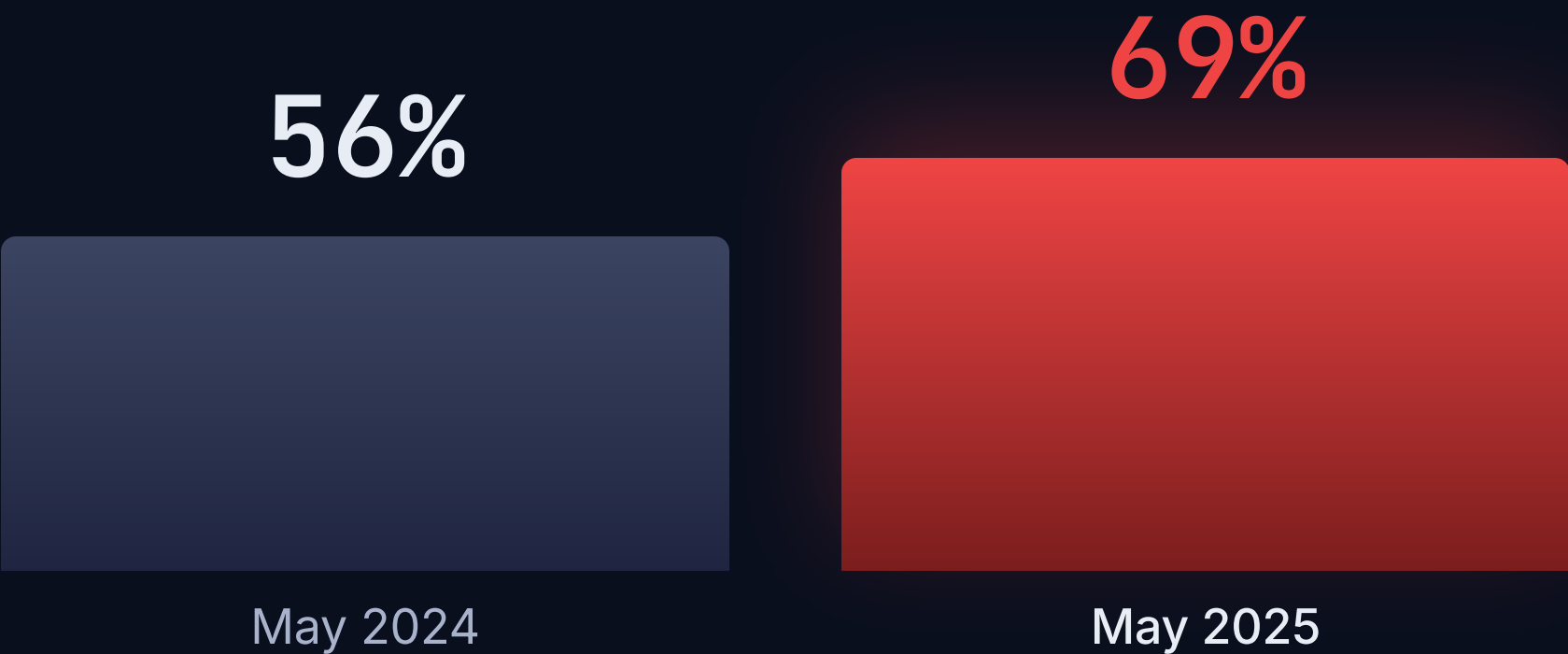
80%

of bot activity is LLM training — not referrals

Zero-click searches.

Even when users do search, they don't click through anymore.

ZERO-CLICK SHARE



CTR WITH AI OVERVIEW

0.6% vs 1.6% without

CLICK REDUCTION

58% Dec '25 (34.5% in Apr)

#1 RESULT UNDER AI OVERVIEW

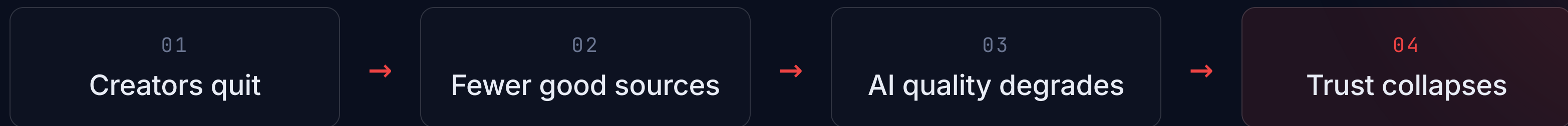
-79% clicks vs baseline

USERS CLICKING AI CITATIONS

1% Pew Research

Publishers expect another **-43%** drop in search referrals by 2029.

If creators stop publishing, the AI training pipeline dries up.



The web runs on an unwritten contract: you crawl, you send readers, everyone wins.
That contract has been unilaterally broken.

The only sustainable fix: make the exchange explicit and verifiable.

"If content dies, AI dies with it."

Why current "solutions" fail.

No neutral, permissionless, programmatic layer exists — from the NYT down to a solo blogger.

robots.txt

Voluntary. **30% of AI bots ignore it.**

Cloudflare AI Labyrinth / bot-blocking

Defensive only — blocks crawl but **monetizes nothing.**

Paywalls

Break the open web for humans too. Kill SEO.

Tollbit / Scalepost

Centralized gatekeepers. Per-publisher deals. US-only.

Lawsuits (NYT v. OpenAI...)

Years-long. Enterprise-scale only. Bloggers left out.

Licensing deals (Reddit-Google, AP-OpenAI)

Bespoke, opaque, exclusive to **top 0.01%** of publishers.

WHAT'S MISSING → A neutral, permissionless, programmatic layer anyone can deploy.

• IOTA WEB GUARDIAN

A programmable paywall that speaks agent.

A 5-step pipeline — full first-fetch handshake in **~2.8 seconds**, amortized to **~77 ms** via a 1-hour JWT.



FIRST FETCH	DID resolution + VC verify + IOTA L1 payment + x402 settlement	~2.8 s
CACHED FETCH	JWT fast path — signature check only, no chain calls	~50 ms
AVG / FETCH	Realistic scraper workload · JWT TTL = 1 hr · 100 pages	~77 ms

First fetch registers the agent. Every subsequent fetch in the next hour is a signature check — **50 ms**. Like a toll booth with an electronic pass: register once, beep-beep forever after.

FOR CREATORS	FOR AI AGENTS	FOR THE ECOSYSTEM
Drop-in WordPress plugin. Monetize every AI agent visit.	Standard HTTP 401 / 402 flow. One-time identity setup.	Every payment on IOTA L1 — public, verifiable, feeless.

Three decoupled services, one open standard.

CVS

Credential Verification Service

Resolves DIDs · validates VC chains · checks challenge nonces.

Rust · IOTA Identity SDK

x402

Payment Verification Service

Verifies on-chain IOTA L1 payment proofs.
Returns settlement tokens.

HTTP 402 · x402 scheme

GUARDIAN

Enforcement Point

Ships as WordPress plugin. Portable middleware for any HTTP stack.

WordPress · reverse-proxy

IDENTITY LAYER

W3C DIDs + Verifiable Credentials on **IOTA Rebased (Move VM)**

PAYMENT LAYER

Native IOTA L1 transfers. Sub-second finality, feeless, Base58 digests.

STANDARD

HTTP 402 + **x402** — backed by Anthropic · Base · Stripe.



Why IOTA — and not anything else.

No other L1 can deliver all five.
To build Guardian anywhere else, you'd have to **stitch together 2–3 different chains**.
IOTA Web Guardian is IOTA-native by **technical necessity**, not sponsorship.

REQUIREMENT	IOTA	ETHEREUM L2	BITCOIN LN
Sub-second finality	✓	~2 s	routing
Feeless micropayments	✓	✗ gas	channel \$
Native DID / VC support	✓ Identity SDK	add-on	✗
On-chain auditable for regulators	✓	✓	partial
Unified identity + payments on a single chain KEY DIFFERENTIATOR	✓	✗ DID off-chain + L2 payment 2 stacks to stitch together	✗ no smart contracts

Real money. Real chain. Not a mock.

Every fetch produces an actual IOTA testnet transaction — anyone can click the digest and verify on the explorer.

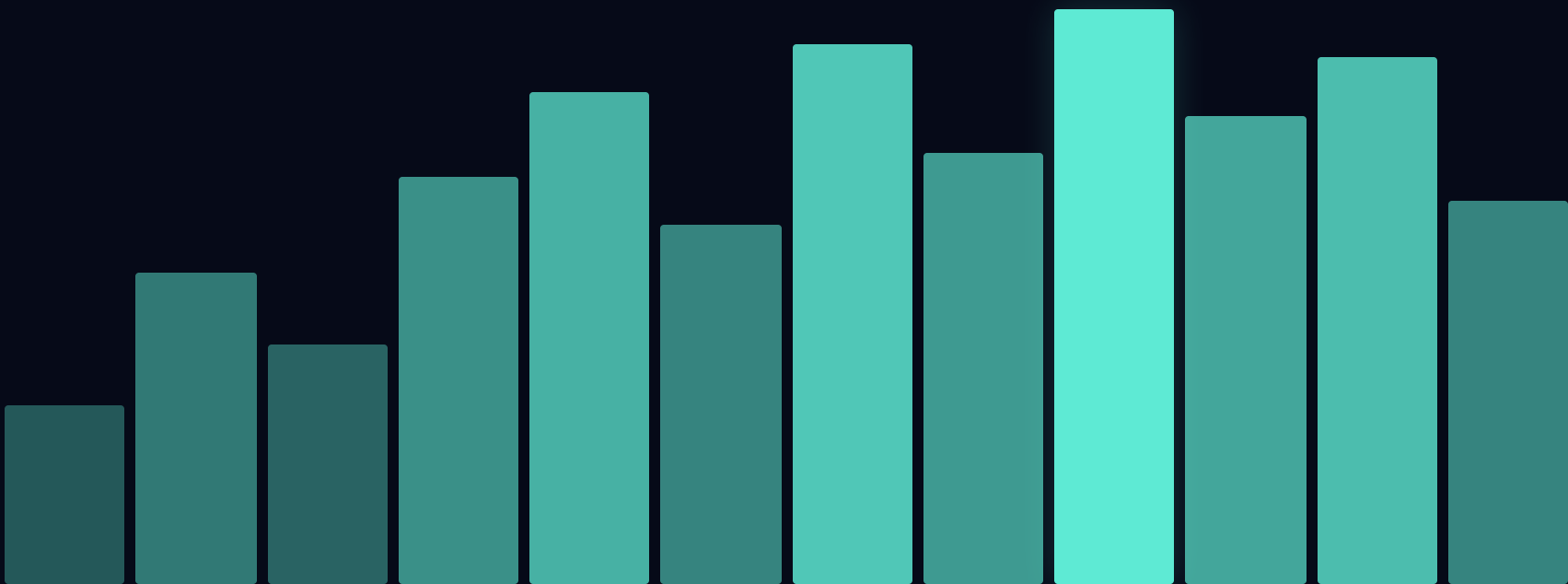
wp-admin / guardian

REVENUE
142,000 nanos

TX VOL
142

AVG LATENCY
77 ms
2.8 s first · 50 ms cached

REVENUE / HOUR



LIVE PIPELINE

401 / VP / 402 / tx / 200 streamed via SSE — watch the round-trip in real time.

TIMING

FIRST FETCH~2.8 s

CACHED (JWT)~50 ms

AVG / FETCH~77 ms

JWT TTL 1 hr · 100-page scraper workload

COST / FETCH
configurable per post type

1,000 nanos

explorer.iota.org/txblock/<digest>

We're not competing with Cloudflare.

We're building the economic layer Cloudflare can't.

CAPABILITY	CF AI LABYRINTH	TOLLBIT	NYT-STYLE LICENSE	IOTA GUARDIAN
Monetizes AI traffic	✗ blocks only	✓	✓	✓
Permissionless — anyone can deploy	✗	✗	✗	✓
On-chain auditable	✗	✗	✗	✓
Per-request micropayments	✗	batched	bulk deals	✓ native
Works for a solo blogger	✗	✗	✗	✓ WP plugin
Verifiable agent identity (W3C DID/VC)	✗	✗	✗	✓
Open standard (HTTP 402 / x402)	✗	proprietary	N/A	✓

The addressable gap is every page on the web that's scraped for free.

DISPLAY-AD TAM

\$140B+

global digital display-ad market size (IAB Internet Advertising Revenue Report, 2024)

VANISHED

600M+

monthly publisher visits lost in the last 12 months

FORECAST

-43%

additional drop in news search referrals by 2029 (publisher survey)

ADDRESSABLE

8.7%

of all HTML web traffic is now AI crawlers — the surface we unlock for monetization

Top 5 at MasterZ × IOTA Hackathon 2026.

PROJECTS

66

EUROPEAN DEVS

200

FINALIST RANK

Top 5

TOP 5 FINALISTS • UNRANKED

- Textile Tracer
- Nplex
- IOTA Web Guardian
- DocuNotary
- Tangle Gate

" IOTA Web Guardian establishes authentication requirements where AI systems must authenticate and pay to access content, enabling fair creator compensation.

— IOTA FOUNDATION • MASTERZ HACKATHON FINALE

NEXT → Invited to the private IOTA ecosystem event in [Berlin](#).

Shipped. Next. Asks.

● SHIPPED

Hackathon deliverable

- ✓ Full 5-step pipeline (Rust + WP plugin)
- ✓ IOTA testnet — DIDs + VCs + L1 payments
- ✓ Interactive 9-step wizard TUI
- ✓ Agent Tester web UI
- ✓ WP dashboard — live charts + explorer links

● NEXT 90 DAYS

Roadmap

- Mainnet launch (IOTA Identity pkg)
- Drupal, Ghost, reverse-proxy adapters
- Agent SDK — TypeScript + Python (1-line integration)
- Pilot with 3–5 real publishers

● FROM IOTA BERLIN

Our asks

- 01 Ecosystem endorsement + co-marketing with the IOTA Identity team
- 02 Intros to Web3 publisher networks (Mirror, Paragraph, Farcaster Frames)
- 03 Alignment with emerging x402 standard working groups
- 04 Mainnet launch support + faucet sponsorship for the pilot

Pay-per-fetch, not pay-per-lawsuit. **Let's build the rails for the agentic web — together.**