Optimization Theory

2026

SEO + AEO + GEO

DEEP DIVE

A practical framework for visibility across search and AI

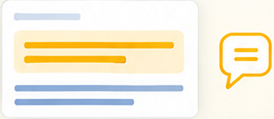
UPDATED SEPTEMBER 2026

SEO

Earn rankings, clicks, and organic discovery.

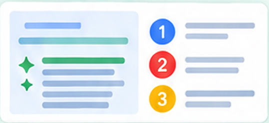
AEO

Provide concise answers inside search and assistant experiences.



GEO

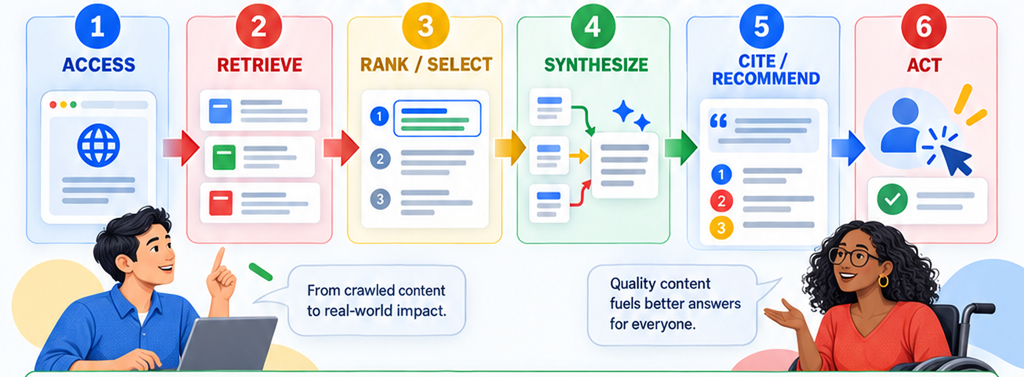
Earn inclusion, citations, and recommendations in generative answers.



ONE CONNECTED DISCIPLINE

For Google Search, optimizing for AI Overviews and AI Mode is still SEO. AEO and GEO are useful lenses, not universal technical standards.

THE SEARCH-TO-ANSWER PROCESS



1. ACCESS
2. RETRIEVE
3. RANK / SELECT
4. SYNTHESIZE
5. CITE / RECOMMEND
6. ACT

From crawled content to real-world impact.

Quality content fuels better answers for everyone.

SHARED FOUNDATION

- Technical access
- Relevance
- Original value
- Evidence
- Authority
- Entity clarity

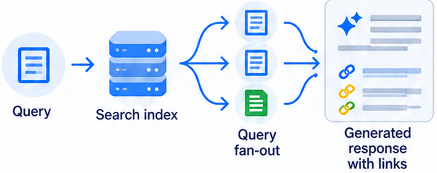
Traditional search ranks documents.
Retrieval-based generative systems can retrieve, select, and synthesize passages from sources.

ONE SEARCH MARKET
DIFFERENT RETRIEVAL PATHS

The surface changes. Foundational SEO remains.

GOOGLE AI OVERVIEWS + AI MODE

Search index + retrieval-augmented generation
May also use query fan-out



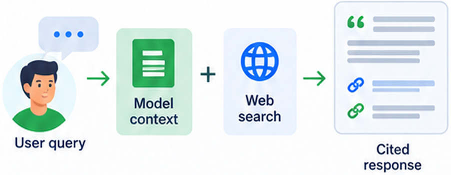
Query → Search index → Query fan-out → Generated response with links

Output: generated response with supporting links

Measure: Search Console tracks AI Overview and AI Mode impressions
Track conversions separately in analytics

CHATGPT SEARCH

Model context + web search



User query → Model context + Web search → Cited response

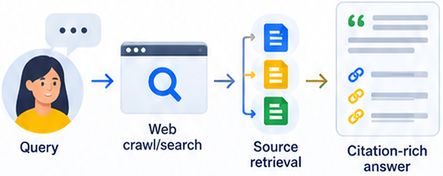
Output: cited response

Access: allow OAI-SearchBot for summaries and snippets

Measure: mentions, citations, and referral traffic

PERPLEXITY

Web crawl/search + source retrieval



Query → Web crawl/search → Source retrieval → Citation-rich answer

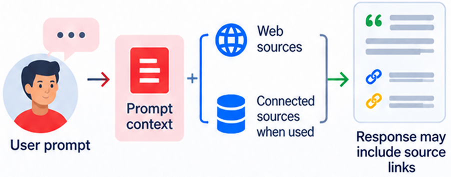
Output: citation-rich answer

Access: allow PerplexityBot for search visibility

Measure: citations, share of voice, and referrals

GEMINI APP

Prompt context + web or connected sources when used



User prompt → Prompt context + Web sources
Connected sources when used → Response may include source links

Output: response that may include source links

Measure: product-specific source and recommendation patterns

ORGANIC RANKING ≠ GUARANTEED AI CITATION

11.9%

Average Google top-10 overlap across five reported citation/reference series. Individual results ranged from 6.1% to 28.6%.

Ahrefs • 15,000 prompts • Aug. 2025

37.1%

AI Overview-cited URLs that also appeared among Google's organic top 10 for the same query.

Ahrefs • 863K SERPs / 4M AIO URLs • Mar. 2026

≈17%

AI Overview sources that also ranked in Google's organic top 10 across BrightEdge's tracked keyword set.

BrightEdge • Feb. 2025 to Feb. 2026

NOT A TREND LINE

Products, query sets, parsing rules, industries, and denominators differ. Compare directionally. Do not read these as one time series.

HOW TO MEASURE SUCCESS

SEARCH

Rankings • Impressions • CTR • Organic traffic • Conversions

AI

Mention share • Citation coverage • Recommendations • Sentiment • Referrals

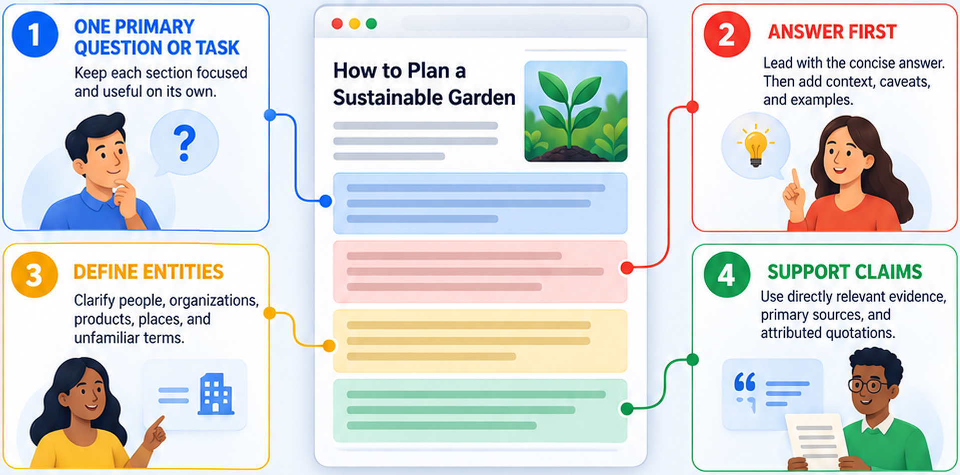
Sources: Google, OpenAI, Perplexity, Ahrefs, BrightEdge. Full links in source appendix.

PASSAGE-FIRST EVIDENCE-RICH PEOPLE-FIRST

Build for humans. Make every useful section understandable in context.

ONE PAGE. MULTIPLE RETRIEVABLE SECTIONS.

Systems may retrieve the passages most relevant to a question.


How to Plan a Sustainable Garden

1 ONE PRIMARY QUESTION OR TASK

Keep each section focused and useful on its own.

2 ANSWER FIRST

Lead with the concise answer. Then add context, caveats, and examples.

3 DEFINE ENTITIES

Clarify people, organizations, products, places, and unfamiliar terms.

4 SUPPORT CLAIMS

Use directly relevant evidence, primary sources, and attributed quotations.

DIRECT ANSWER + **STANDALONE CONTEXT** + **EVIDENCE** + **SOURCE** = **EXTRACTABLE PASSAGE**

CONNECT THE TRUST MODEL

TRUST CHECKLIST

PAGE ↔ AUTHOR ↔ ORGANIZATION ↔ TOPIC / PRODUCT ↔ INDEPENDENT SOURCES

1. WHO WROTE THIS?
2. WHY ARE THEY CREDIBLE?
3. WHEN WAS IT REVIEWED?
4. WHERE DID THE CLAIM COME FROM?

STRUCTURED DATA: CLARIFY, DON'T OVERPROMISE

Use page-appropriate markup that matches visible content. It can clarify meaning and enable supported search features; it does not guarantee rankings, rich results, or AI citations.

- Article
- Organization
- ProfilePage
- Breadcrumb

⚠ FAQPage and HowTo remain Schema.org types. Google Search no longer displays either as a rich result.

FAQ rich result ended May 7, 2026 • HowTo rich result ended Sept. 13, 2023

UP TO 40%

Relative lift in experimental source-visibility metrics after five sources were supplied to the model. Results varied by method and domain.

10,000-query benchmark • Aggarwal et al., KDD 2024

This did not measure live-web discovery, rankings, traffic, or conversions.

MAKE IT RETRIEVABLE THEN IMPROVE IT

Technical access first. Evidence and authority next. Measurement always.

THE TECHNICAL VISIBILITY HIERARCHY

1. **CRAWLABLE HTML** Keep essential text, headings, links, and entity details accessible.
2. **CRAWLER + FIREWALL ACCESS** Verify robots.txt, CDN, firewall, and bot-protection rules.
3. **SITEMAPS + INTERNAL LINKS** Create clear discovery paths to important canonical pages.
4. **VALID STRUCTURED DATA** Match visible content and use supported, page-appropriate types.
5. **OPTIONAL EXPERIMENTS** Test only after the foundations are sound.

DON'T ASSUME EVERY CRAWLER RENDERS JAVASCRIPT

Google documents browser rendering. The AI search crawlers below do not promise equivalent browser rendering. Keep critical content in response HTML and test server logs.

SEPARATE CRAWLER CONTROLS

TRAINING / GROUNDING CONTROLS

- **GPTBot**: OpenAI training crawler
- **ClaudeBot**: Anthropic training crawler
- **Google-Extended**: control token for Gemini training and grounding; not a separate crawler or a Google Search control

SEARCH / CITATION CRAWLERS

- **OAI-SearchBot**
- **Claude-SearchBot**
- **PerplexityBot**

Allow when discovery is desired.
Access does not guarantee inclusion.

Blocking training does not automatically block search visibility. Configure each provider separately.

robots.txt controls crawling. A noindex directive must be fetched to be read.

llms.txt: OPTIONAL, NOT FOUNDATIONAL

Google Search ignores llms.txt. Treat it as an optional experiment for other systems, not as access control or a replacement for robots.txt and sitemaps.

THE 2026 OPERATING ROADMAP

NOW

- ✓ Audit rendering and access
- ✓ Review bot policies
- ✓ Retrofit highest-value pages
- ✓ Establish baselines

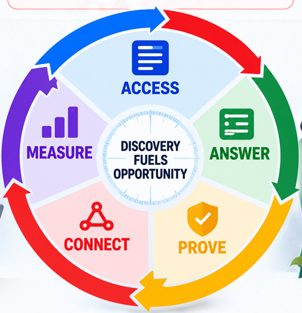
NEXT

- ✓ Strengthen author identity
- ✓ Publish original evidence
- ✓ Align entity signals
- ✓ Earn credible third-party mentions

ONGOING

- ✓ Track each surface separately
- ✓ Refresh time-sensitive sources
- ✓ Test prompt variants
- ✓ Re-audit vendor documentation

HTML
<html>
<head>
<title>
</head>
<body>
<h1>
EVIDENCE
AUTHORITY



ACCESS

ANSWER

PROVE

CONNECT

MEASURE

DISCOVERY FUELS OPPORTUNITY

☑ Crawlable
☑ Structured data
☑ Author signals
☑ Citations
☑ Measurable growth
TECHNICAL
CONTENT
MEASUREMENT

OPTIMIZE FOR DISCOVERY. EARN THE ANSWER.

OptimizationTheory

Infographic by Jourdan Rombough • OptimizationTheory.com
AI-Assisted Visual Design with GPT Images 2.5 • Updated September 2026