

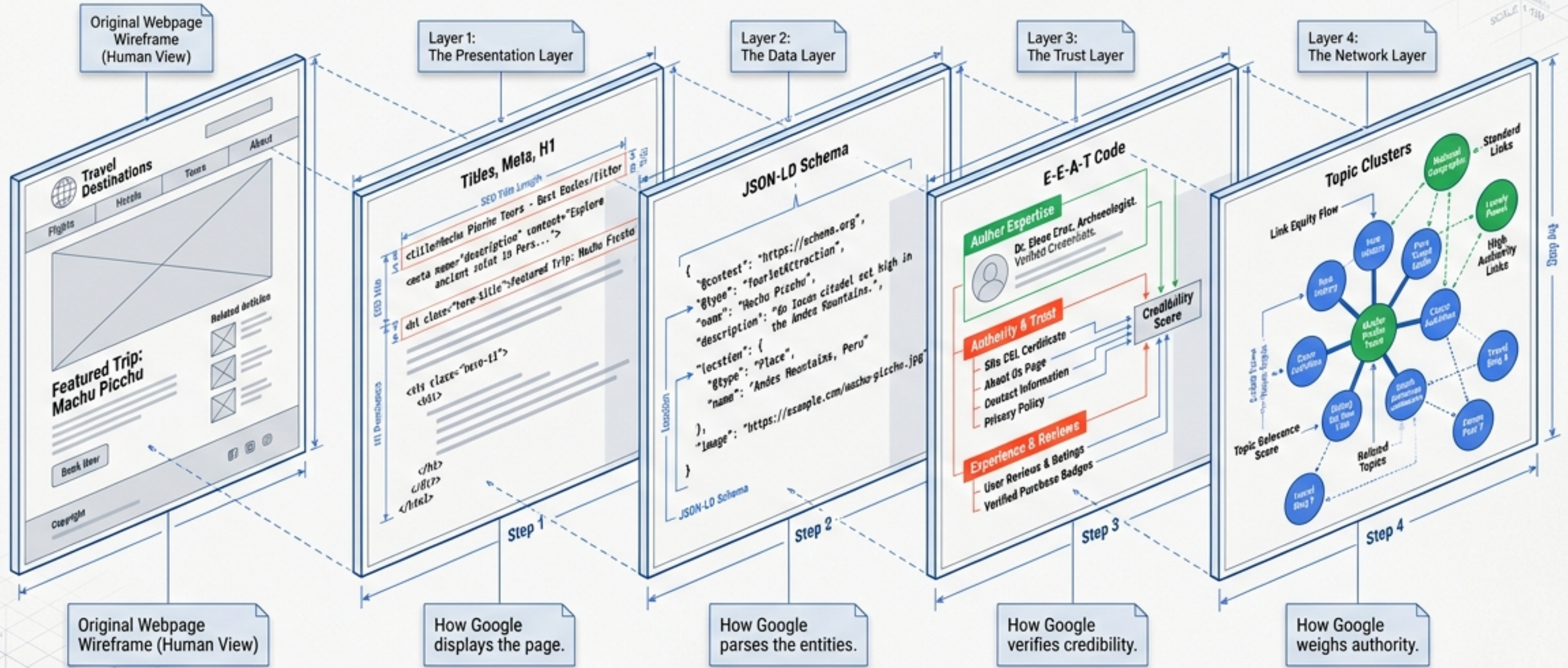
On-Page Optimization & Structured Data Architecture

The Performance Marketer's Blueprint to Machine Comprehension



The Four Layers of Machine Comprehension

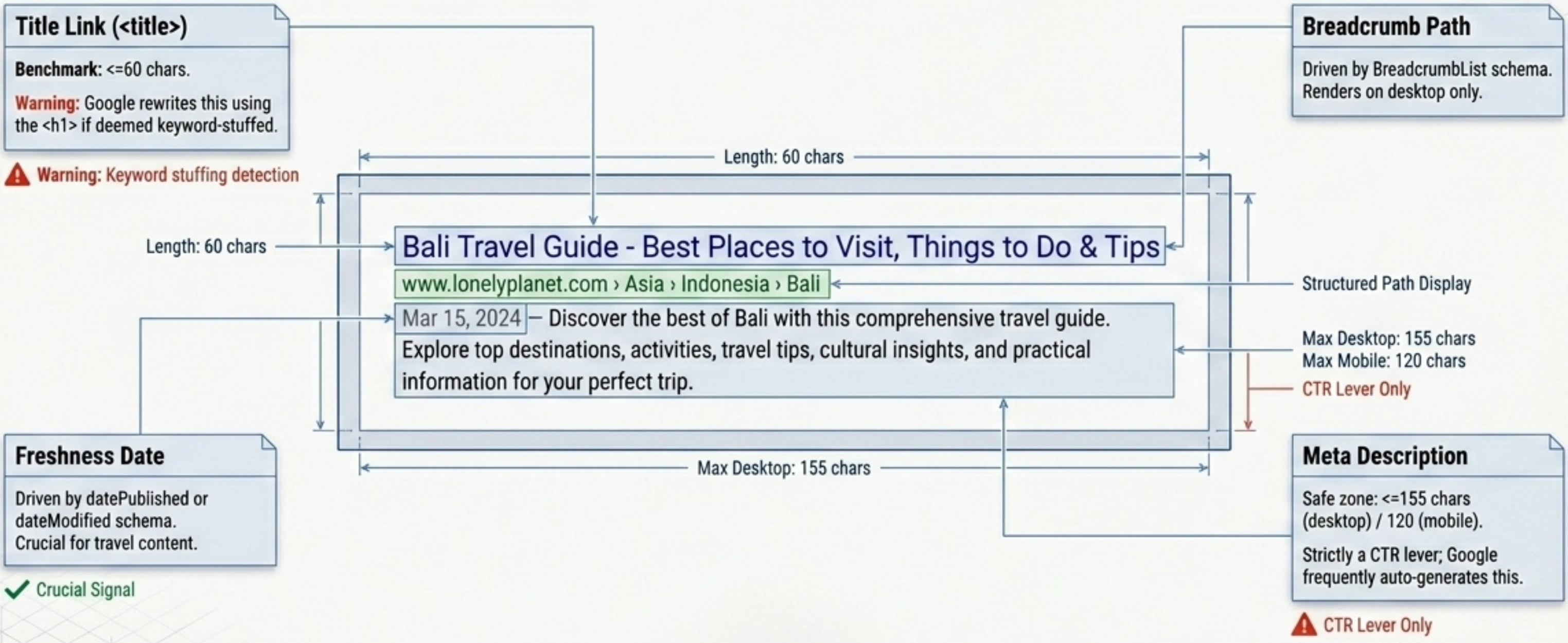
Google does not read pages like a human; it parses them as structured entities.



TTD:0.2	PRISMEST - SEARCH ENGINE COMPREHENSION MODEL
	SCALE 1-100
	VERSION HISTORY
	REVISION HISTORY
	SECTIONS

Layer 1: Anatomy of the Presentation Layer

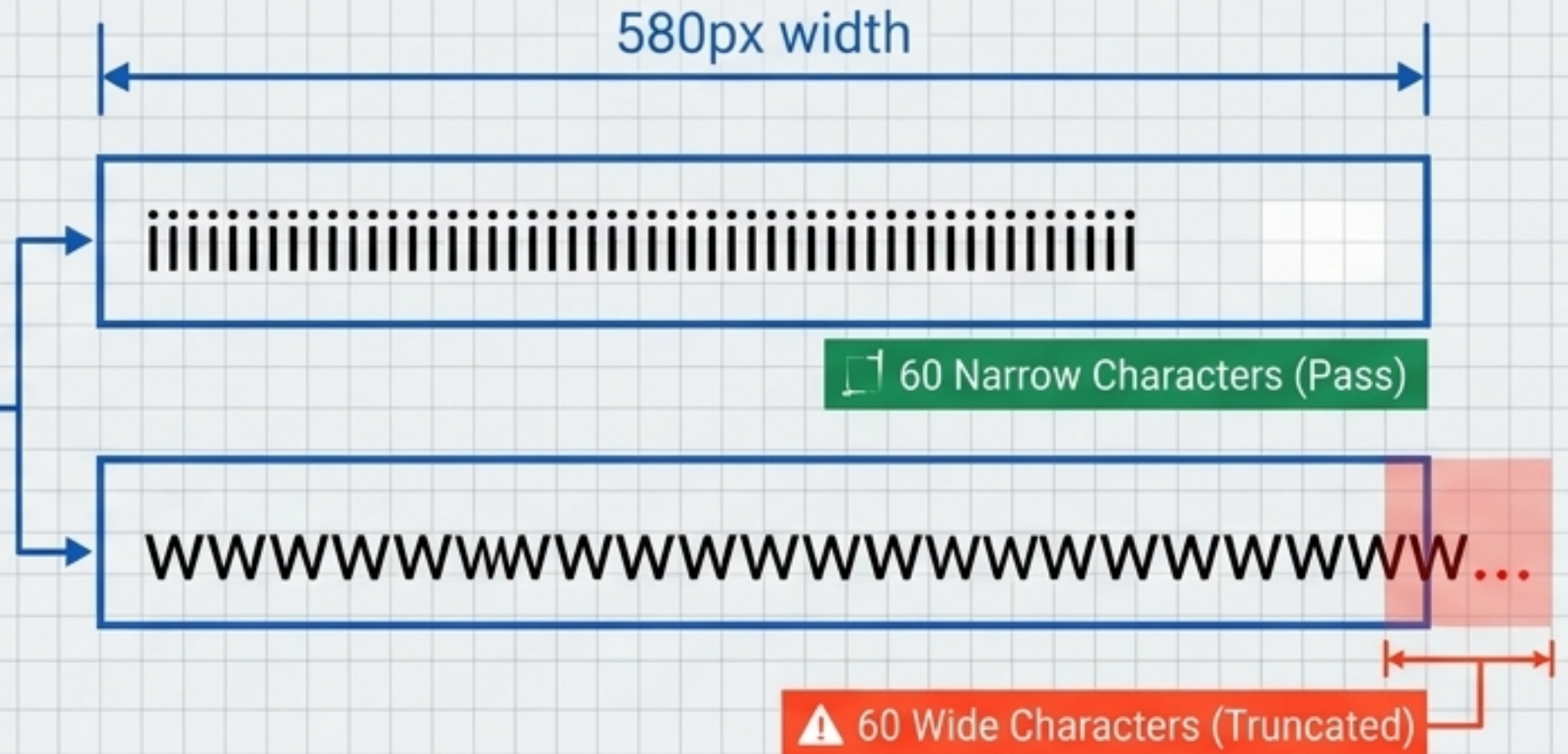
Dissecting how Google constructs the visible snippet for users on desktop.



T10-C3	PROBLEET - SEARCH ENGINE COMPREHENSION MODEL		
	LAYER	PRESENTATION	
	UDORERATION		
	B4	REVIEWED HISTORY	DECEMBER

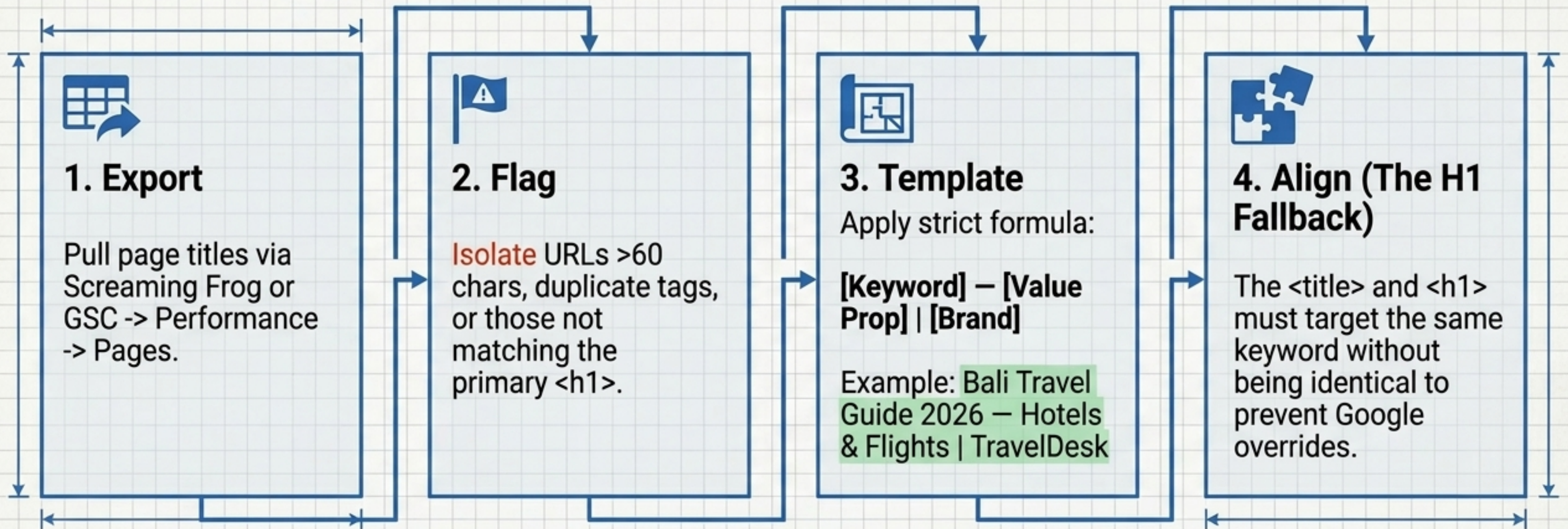
The Pixel-Width Truncation Heuristic

- The Google Rule: No specified character limit. Truncated based on device width.
- The Empirical Reality: Truncation on desktop occurs around ~580px. The 60-character rule is an industry heuristic.
- The Fix: Design for pixel width. Wide letters consume more space than narrow letters.



PROJECT: SEARCH ENGINE COMPREHENSION MODEL	TITLE: PIXEL-WIDTH TRUNCATION	REV: R1	REVISION HISTORY
SCALE: 1:100	DESCRIPTION: Truncation based on ~580px pixel width, not character count.		

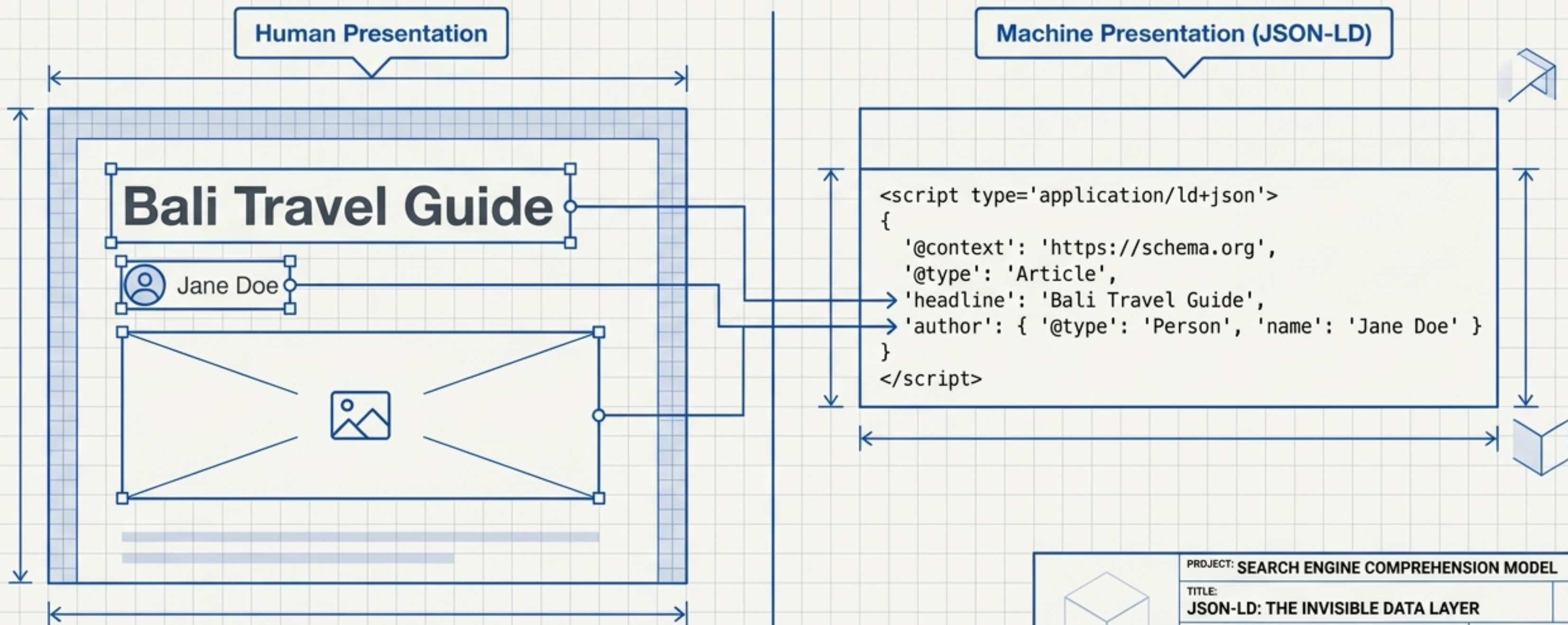
The Presentation Layer Workflow




PROJECT: SEARCH ENGINE COMPREHENSION MODEL	TITLE: PRESENTATION LAYER WORKFLOW		
SCALE: 1:100	DESCRIPTION: Four-step process for title and H1 alignment.	REV: R1	REVISION HISTORY

Layer 2: JSON-LD — The Invisible Data Layer

To a human, it's an article. To a machine, it is a structured dataset.



	PROJECT: SEARCH ENGINE COMPREHENSION MODEL	
	TITLE: JSON-LD: THE INVISIBLE DATA LAYER	REV: R2
	DESCRIPTION: Mapping human UI elements to structured machine-readable data.	SCALE: 1:100 REVISION HISTORY

The Schema Type Decision Matrix

Article (or BlogPosting)	Product	BreadcrumbList
Editorial content (inform without a direct transaction)	Transactional pages (purchasable/reviewable items)	Hierarchical site navigation
Zero. Add properties that apply.	name and either review, aggregateRating, or offers.	Minimum two ListItem entries. Final item omits URL.
<u>Enhanced title text, freshness dates, image carousels</u>	<u>Product Snippets (live price, currency, availability)</u>	<u>Navigational path beneath the title link</u>
<u>Requires 16:9, 4:3, 1:1 image aspect ratios</u>	<u>Requires validThrough to prevent stale cache pricing</u>	<u>Currently renders on desktop only</u>

PROJECT: SEARCH ENGINE COMPREHENSION MODEL

SCALE: 1:100 REV: R3

TITLE: THE SCHEMA TYPE DECISION MATRIX

REVISION HISTORY

DESCRIPTION: Structural breakdown of primary schema types, requirements, and outputs.

Real-World Application: Travel & OTA

Scenario A: The Destination Guide



Primary Action: Reading / Planning

Action: Use @type: Article. Include headline, author, dateModified, and image (min 50k pixels total).

Scenario B: The Booking Engine



Primary Action: Transaction

Action: Use @type: Product. MUST include an Offer node exposing price, priceCurrency, and availability. Add a sku for deduplication.



PROJECT: SEARCH ENGINE COMPREHENSION MODEL

TITLE: JSON-LD: THE INVISIBLE DATA LAYER

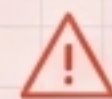
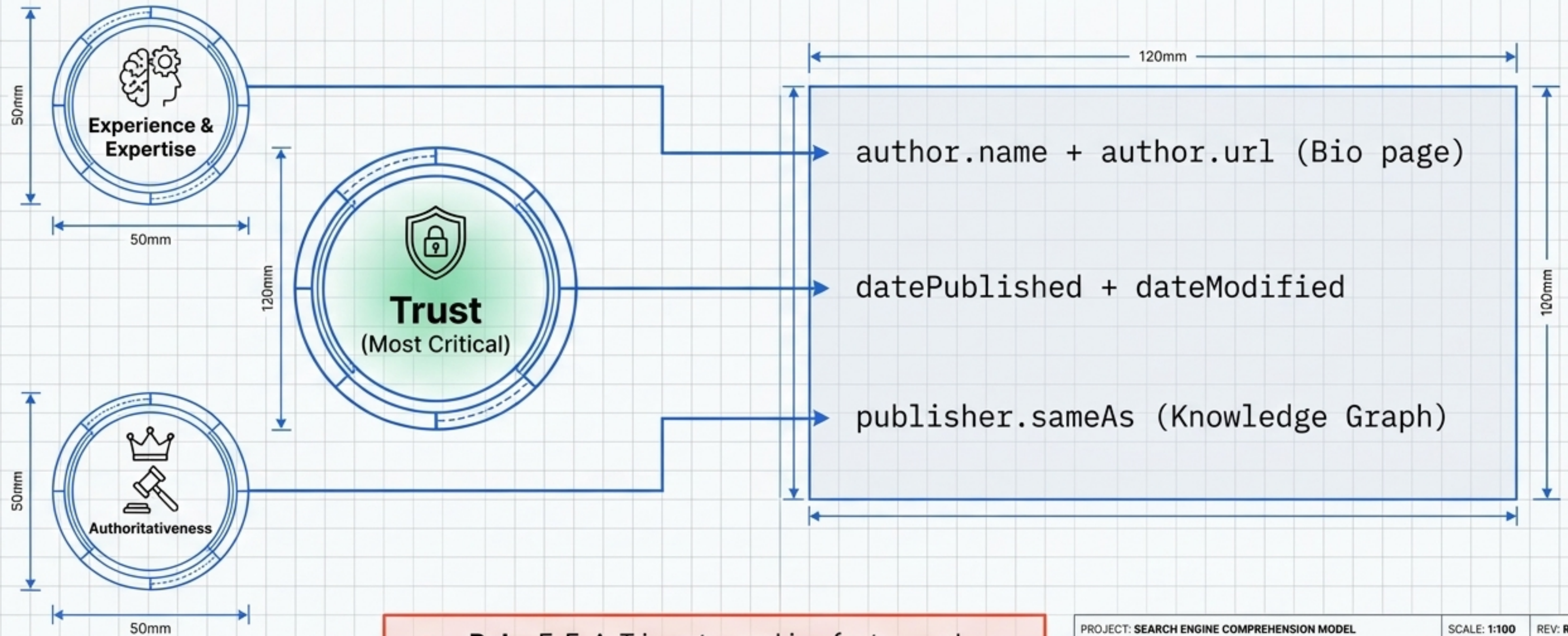
REV: R2

DESCRIPTION: Mapping human UI elements to structured machine-readable data.

SCALE: 1:100 REVISION HISTORY

Layer 3: Demystifying E-E-A-T

Google infers Trust via specific encoded structured data signals.



Rule: E-E-A-T is not a ranking factor, and there is no @type: EEATSignal in Schema.org.

PROJECT: SEARCH ENGINE COMPREHENSION MODEL

SCALE: 1:100

REV: R3

TITLE: DEMYSTIFYING E-E-A-T & STRUCTURED DATA SIGNALS

REVISION HISTORY

DESCRIPTION: Conceptual mapping of E-E-A-T principles to specific Schema.org properties and JSON-LD examples.

The Publisher Trap: Author Disambiguation

THE PITFALL

```
'author': {  
  '@type': 'Person',  
  'name': 'TravelDesk Staff'  
}
```

Setting author to a publication name is a compliance failure. It prevents Knowledge Graph disambiguation.

THE BLUEPRINT FIX

```
'author': {  
  '@type': 'Person',  
  'name': 'Jane Doe',  
  'url': 'https://example.com/author/jane-doe'  
}
```

1. Use only the author's real name.
2. Use @type: Organization for the brand entity.
3. Pair name with author.url pointing to a verified bio.

PROJECT: SEARCH ENGINE COMPREHENSION MODEL

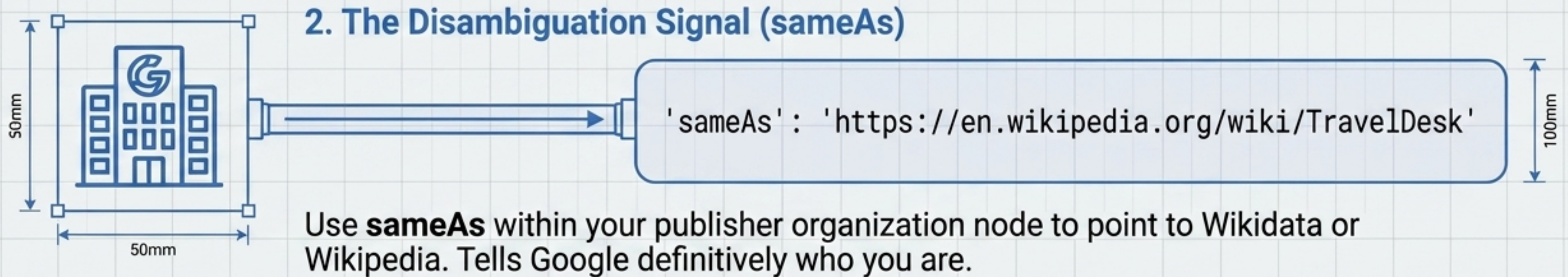
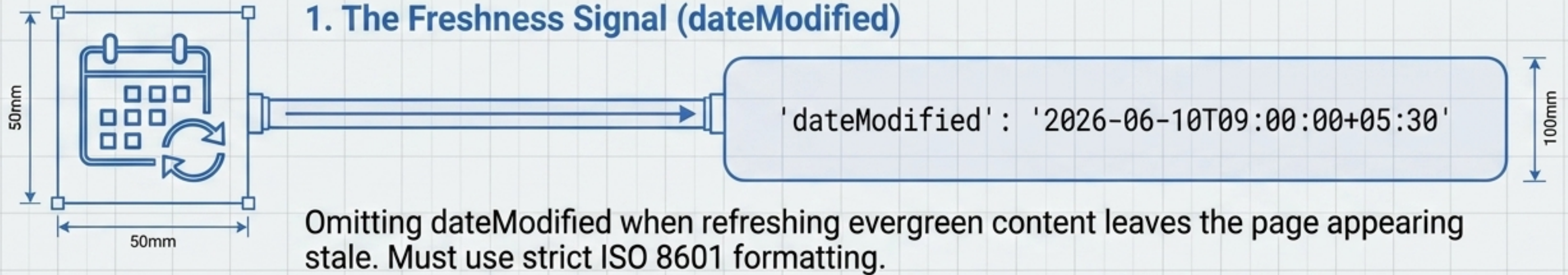
TITLE: THE PUBLISHER TRAP: AUTHOR DISAMBIGUATION

SCALE: 1.5/ 10

REVISION:

REV. 1

Encoding Freshness & Brand Authority



PROJECT: SEARCH ENGINE COMPREHENSION MODEL

TITLE: ENCODING FRESHNESS & BRAND AUTHORITY

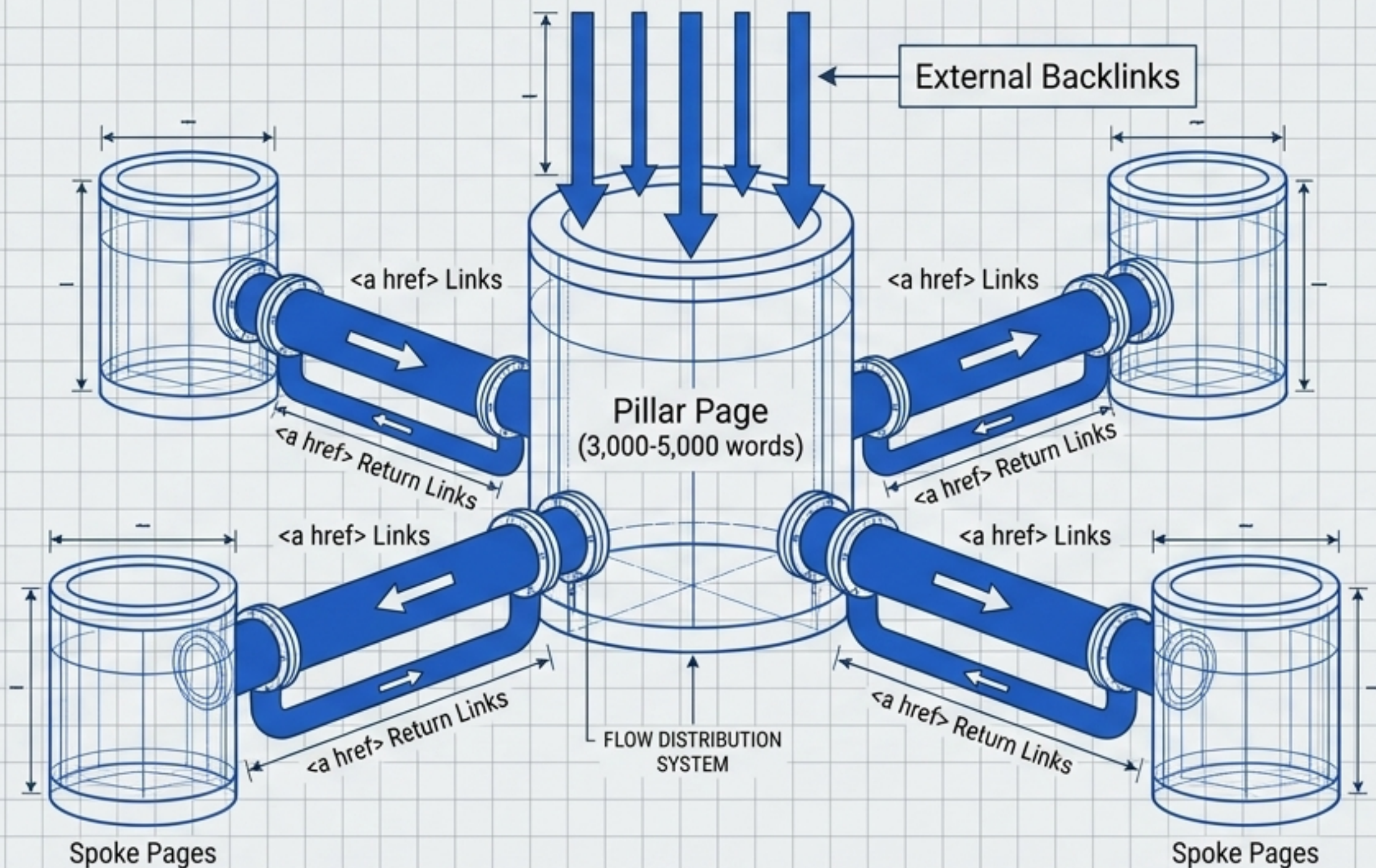
SCALE: 1:100

REVISION:

REV: R4

Layer 4: The Network Architecture

The Pillar-Spoke Model: Internal links are the plumbing that distributes PageRank.

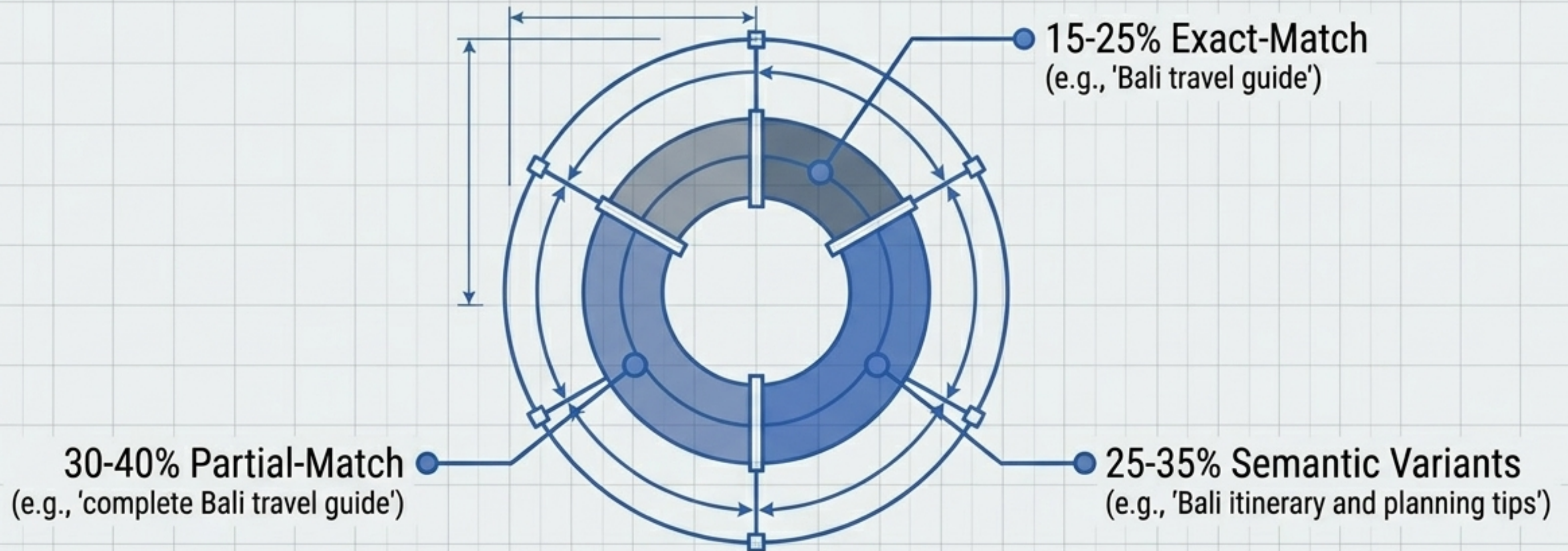


Bidirectional Flow:

1. The Pillar covers a broad topic and acts as a magnet for external links.
2. The Pillar funnels equity outward to the spokes via standard HTML links.
3. Spokes link back to the pillar, creating a self-sustaining PageRank pool.

PROJECT:	SEARCH ENGINE COMPREHENSION MODEL		
TITLE:	LAYER 4: NETWORK ARCHITECTURE		
SCALE:	1:100	REVISION:	REV: R5

The Anchor Text Distribution Blueprint

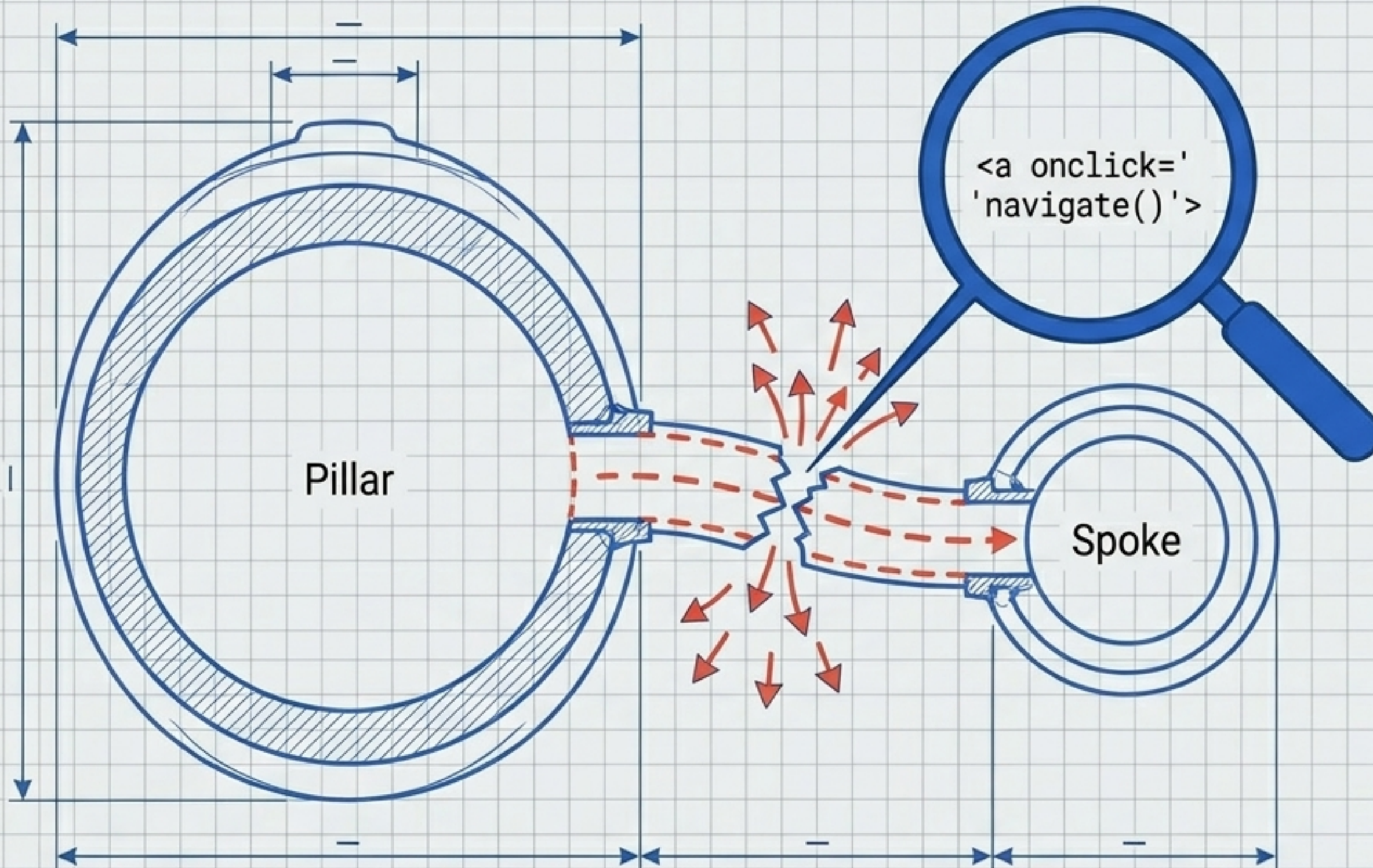


The Cardinal Sin

Using generic anchor text like 'click here' or 'read more'. Descriptive anchor text is exactly how Google parses destination relevance. Generic anchors destroy topical signaling.

PROJECT:	SEARCH ENGINE COMPREHENSION MODEL		
TITLE:	THE ANCHOR TEXT DISTRIBUTION BLUEPRINT		
SCALE:	1:100	REVISION:	REV: R6

The JavaScript Leak



- **The Pitfall:**

Using JavaScript-only navigation (onclick handlers or href='#' with JS routing).

- **The Reality:**

Google explicitly states it can only reliably crawl standard `` HTML elements.

- **The Impact:**

If anchor links aren't crawlable, PageRank does not flow. The entire pillar-cluster equity model breaks down.

PROJECT: SEARCH ENGINE COMPREHENSION MODEL

TITLE: THE JAVASCRIPT LEAK

SCALE: 1:100

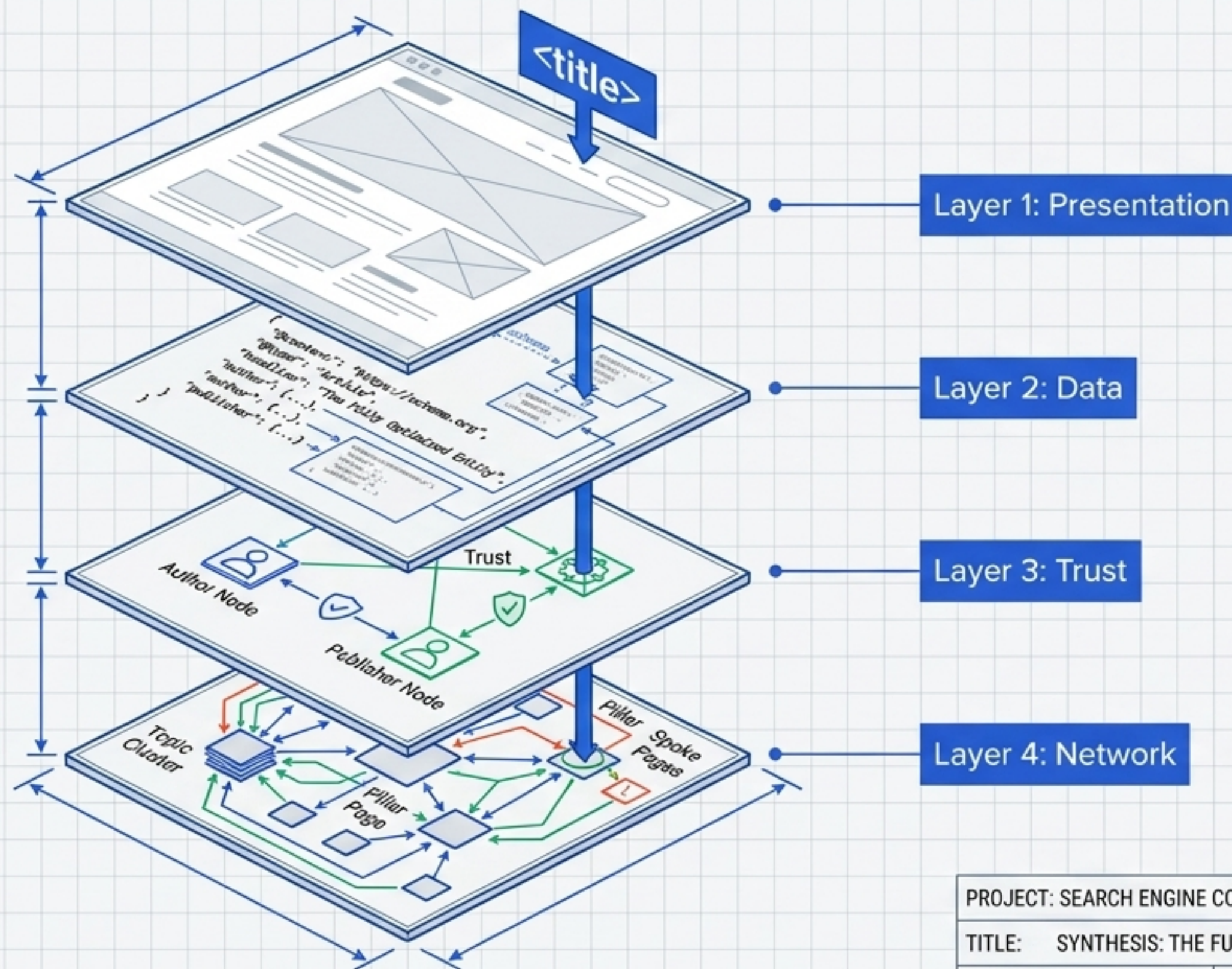
REVISION:

REV: R7

Synthesis: The Fully Optimized Entity

A fully optimized asset is a single machine perfectly calibrated for machine comprehension.

The rewritten title (Layer 1) matches the headline in the Article schema (Layer 2), which is authored by a validated entity (Layer 3), and supported by crawlable semantic anchor text flowing from the topic cluster (Layer 4).



PROJECT: SEARCH ENGINE COMPREHENSION MODEL	
TITLE: SYNTHESIS: THE FULLY OPTIMIZED ENTITY	
SCALE: NTS	REVISION: R8

The Dual-Validator Diagnostic

A schema can be syntactically perfect but still fail to generate a rich result. You must use both tools.

1. Schema Markup Validator

validator.schema.org



What it checks: Strict syntactic compliance with the core Schema.org vocabulary.

- **Limitation:** Passing here does not guarantee Google will actually use it.

2. Google Rich Results Test

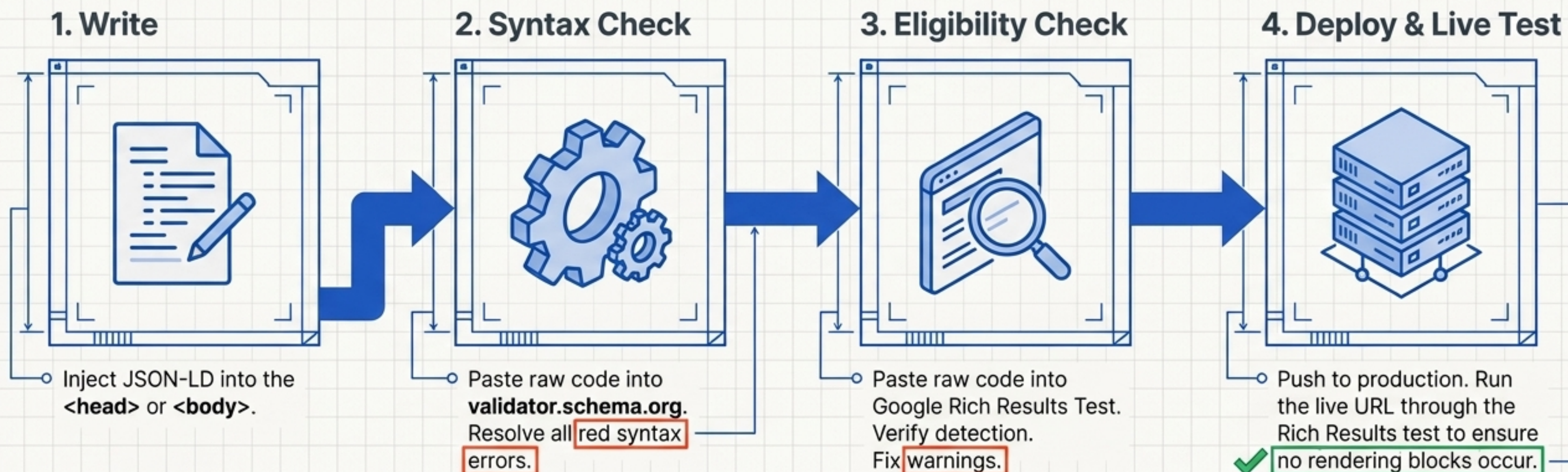
search.google.com/test/rich-results



What it checks: Google-specific eligibility requirements (missing recommended properties, spam policy violations).

- **Limitation:** Only tests for features Google explicitly supports in Search.

The Masterclass Deployment Flow



PROJECT:
MASTERCLASS DEPLOYMENT PIPELINE

TITLE:
SYNTHESIS: THE MASTERCLASS DEPLOYMENT FLOW

SCALE:
NTS

REVISION:
R1

Hands-On Exercise: The 15-Minute Audit Workflow

Pick one destination guide URL from a site you manage in GSC.



- Title Check:** Is it ≤ 60 characters / $\sim 580\text{px}$? Rewrite to [Keyword] – [Value Prop] | [Brand].
- H1 Alignment:** Does exactly one `<h1>` exist, targeting the same primary keyword?
- Meta Check:** Is it ≤ 155 chars? Is it framed as a user benefit?
- Data Layer Check:** View source. Does it have Article JSON-LD?
- Trust Layer Check:** Does the schema include `author.name`, `author.url`, `dateModified`, and `publisher.sameAs`?
- Validation Check:** Run live URL through Rich Results Test. Are there zero errors?

THE ARCHITECTURE FACT SHEET: CORE BENCHMARKS

Title Truncation:

~**580px** desktop threshold
(Heuristic: \leq **60** characters)

Meta Description limits:

\leq **155** chars (desktop),
~**120** chars (mobile)

Pillar Page Target length:

3,000-5,000 words

Internal Links per article:

3-5 contextual `<a href>` links

Article Schema Required Fields:

Zero (Add what applies)

Article Image Specs:

Min **50,000** pixels total;
16:9, 4:3, **1:1 ratios**

BreadcrumbList requirement:

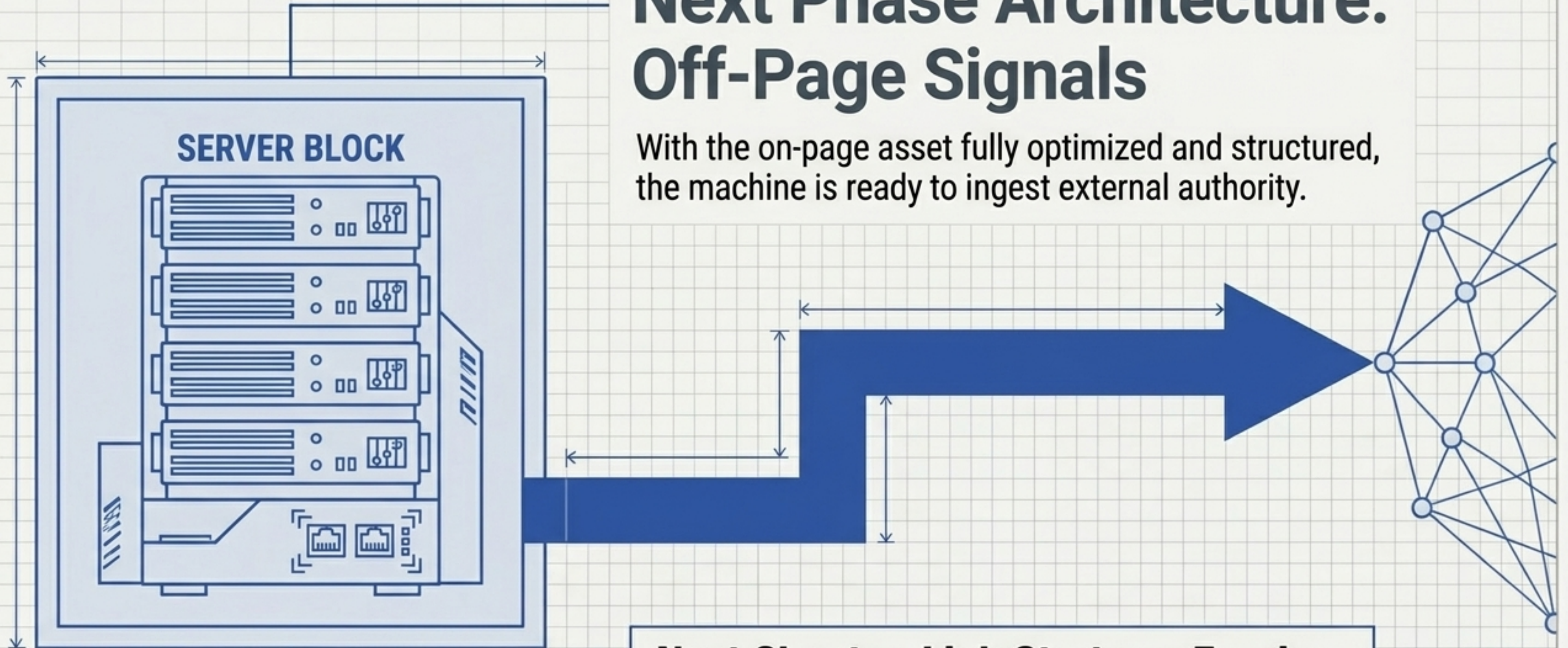
Minimum **2** items. Renders on desktop only.

E-E-A-T Schema Encoding:

author.name, author.url,
dateModified (ISO 8601),
publisher.sameAs

Next Phase Architecture: Off-Page Signals

With the on-page asset fully optimized and structured, the machine is ready to ingest external authority.



Next Chapter: Link Strategy: Earning, Auditing & Disavowing Backlinks.