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Schema App

The Evolution of SEO: Why the Future is Data-Centric

Live Webinar

Patrick Reinhart
VP, Services & Thought Leadership
Conductor

Martha van Berkel
Co-founder & CEO
Schema App

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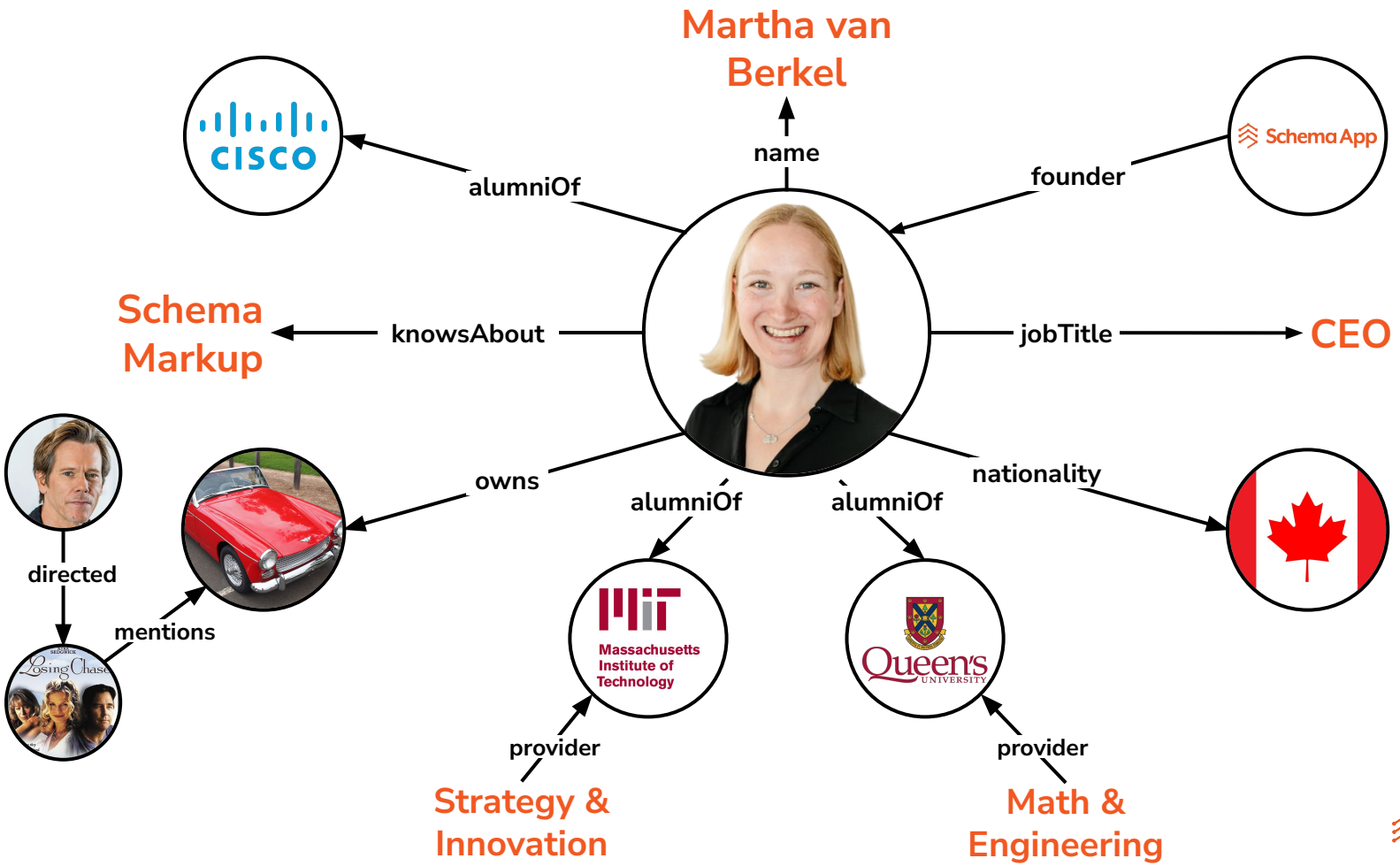
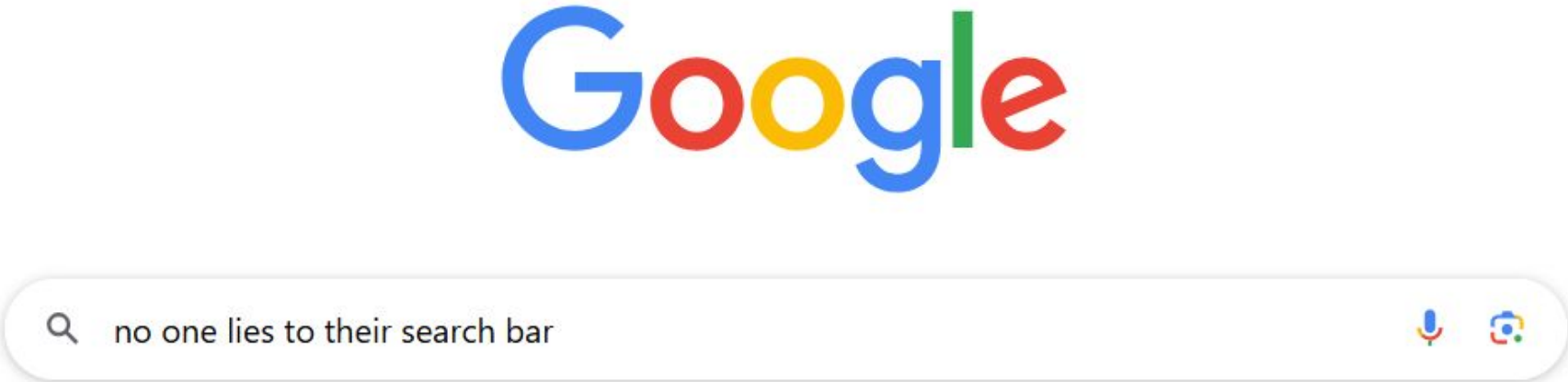
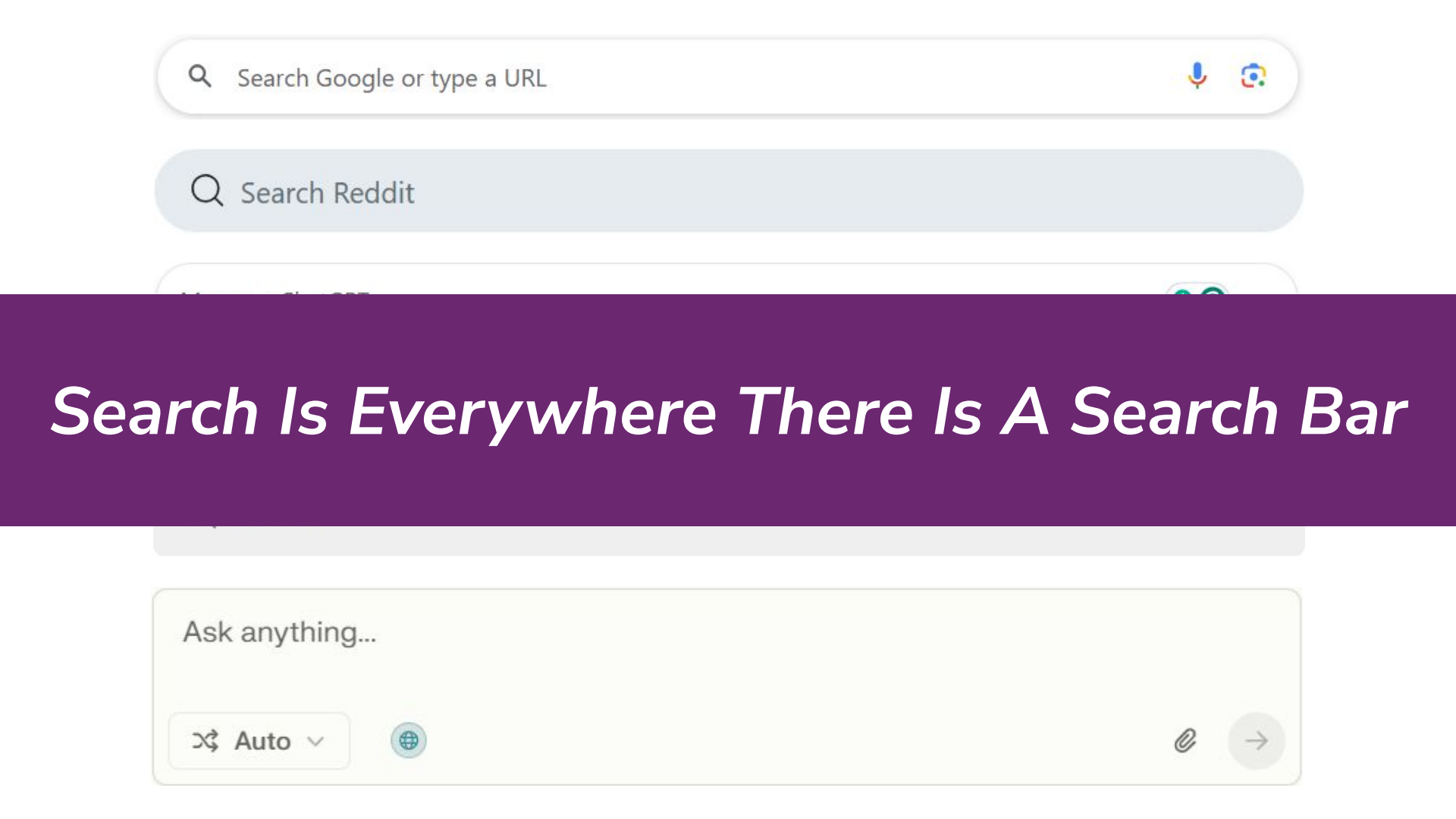
Who Is This Guy?

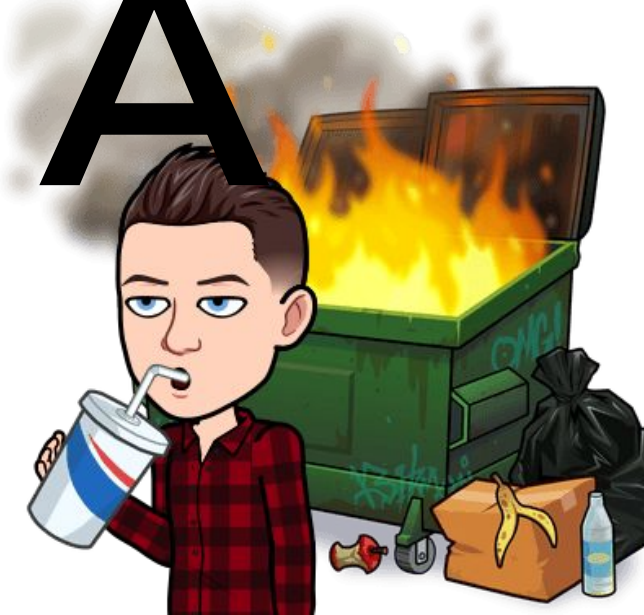
- *VP, Services & Thought Leadership @ Conductor*
- *20 Year SEO Veteran*
- *Bitmoji Enthusiast*
- *Jaded Jets Fan*

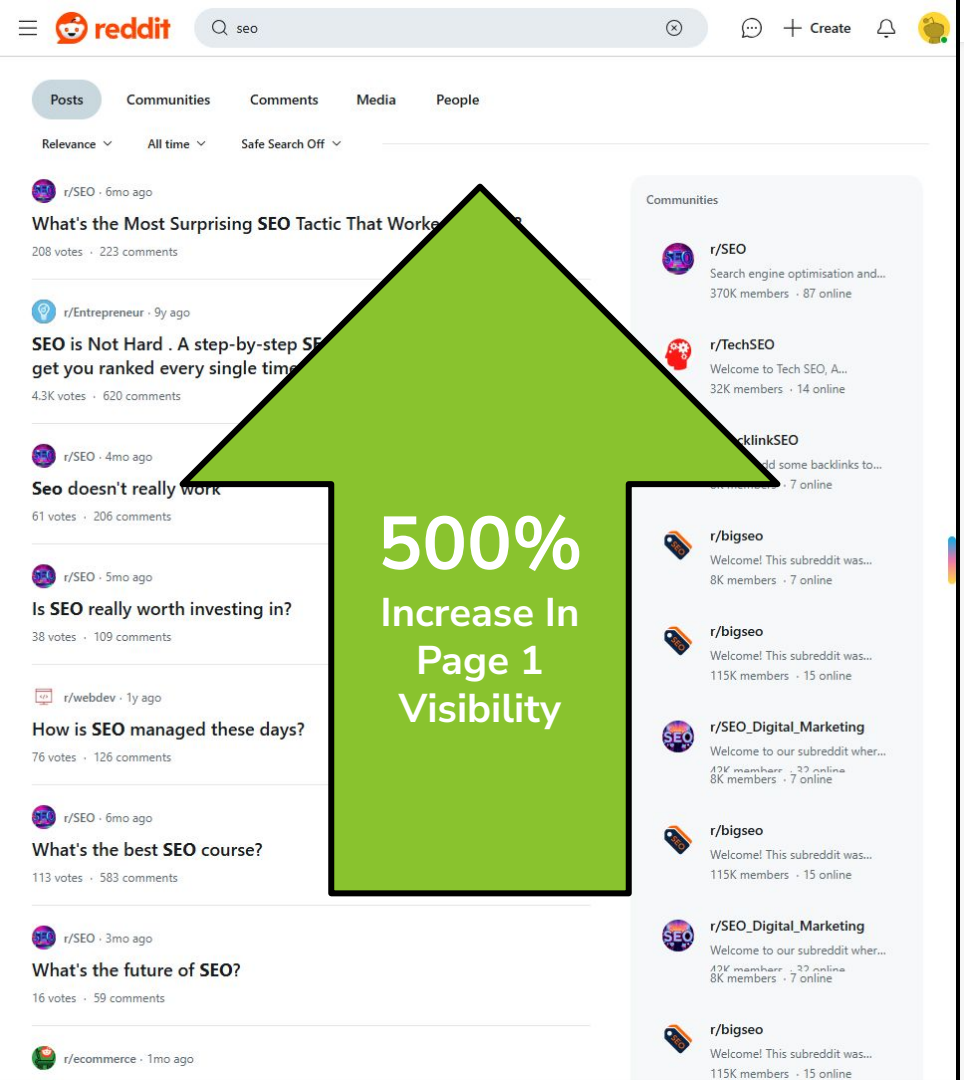

Martha van Berkel
name
alumniOf
founder
Schema App
Schema Markup
knowsAbout
jobTitle
CEO
owns
nationality
alumniOf
alumniOf
directed
mentions
Losing Chase
Massachusetts Institute of Technology
Queen's University
provider
provider
Strategy & Innovation
Math & Engineering

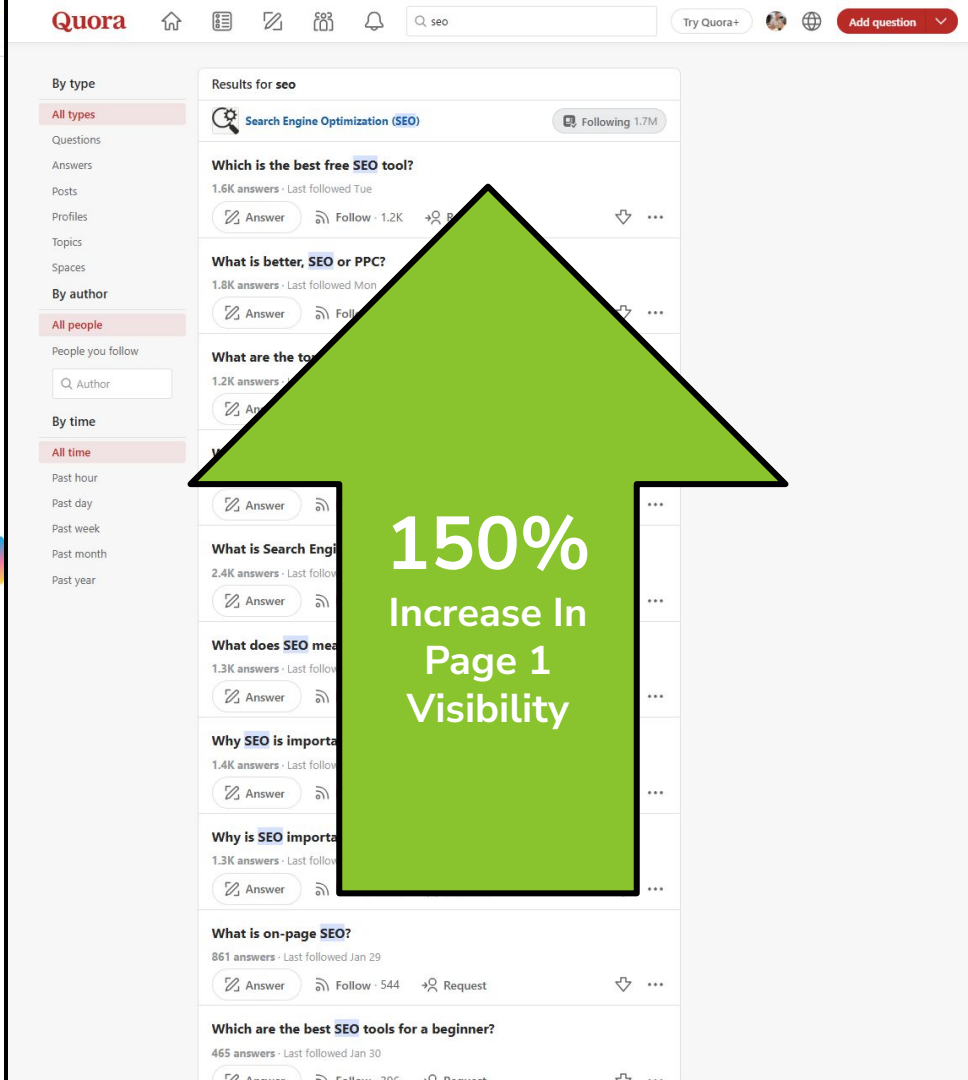

Google
no one lies to their search bar


Search Google or type a URL
Search Reddit
Search Is Everywhere There Is A Search Bar
Ask anything...
Auto

SEARCH IS HAVING A MINUTE




reddit
seo
Create
Posts
Communities
Comments
Media
People
Relevance
All time
Safe Search Off
r/SEO · 6mo ago
What's the Most Surprising SEO Tactic That Worke
208 votes · 223 comments
r/Entrepreneur · 9y ago
SEO is Not Hard . A step-by-step SE
get you ranked every single time
4.3K votes · 620 comments
r/SEO · 4mo ago
Seo doesn't really work
61 votes · 206 comments
r/SEO · 5mo ago
Is SEO really worth investing in?
38 votes · 109 comments
r/webdev · 1y ago
How is SEO managed these days?
76 votes · 126 comments
r/SEO · 6mo ago
What's the best SEO course?
113 votes · 583 comments
r/SEO · 3mo ago
What's the future of SEO?
16 votes · 59 comments
r/ecommerce · 1mo ago
Communities
r/SEO
Search engine optimisation and...
370K members · 87 online
r/TechSEO
Welcome to Tech SEO, A...
32K members · 14 online
r/bigseo
Welcome! This subreddit was...
8K members · 7 online
r/bigseo
Welcome! This subreddit was...
115K members · 15 online
r/SEO_Digital_Marketing
Welcome to our subreddit wher...
8K members · 7 online
r/bigseo
Welcome! This subreddit was...
115K members · 15 online
r/SEO_Digital_Marketing
Welcome to our subreddit wher...
8K members · 7 online
r/bigseo
Welcome! This subreddit was...
115K members · 15 online
500%
Increase In
Page 1
Visibility


Quora
seo
Try Quora+
Add question
By type
All types
Questions
Answers
Posts
Profiles
Topics
Spaces
By author
All people
People you follow
Author
By time
All time
Past hour
Past day
Past week
Past month
Past year
Results for seo
Search Engine Optimization (SEO)
Following 1.7M
Which is the best free SEO tool?
1.6K answers · Last followed Tue
Answer
Follow · 1.2K
What is better, SEO or PPC?
1.8K answers · Last followed Mon
Answer
What are the to
1.2K answers
Answer
What is Search Engi
2.4K answers · Last follow
Answer
What does SEO mea
1.3K answers · Last follow
Answer
Why SEO is importa
1.4K answers · Last follow
Answer
Why is SEO importa
1.3K answers · Last follow
Answer
What is on-page SEO?
861 answers · Last followed Jan 29
Answer
Follow · 544
Request
Which are the best SEO tools for a beginner?
465 answers · Last followed Jan 30
150%
Increase In
Page 1
Visibility

40%

% Of Gen Z'ers Who Start Their Searches On Instagram and Tiktok

The AIO Impact

(So Far)

7%
Generating AIO's

1%
MoM Increase

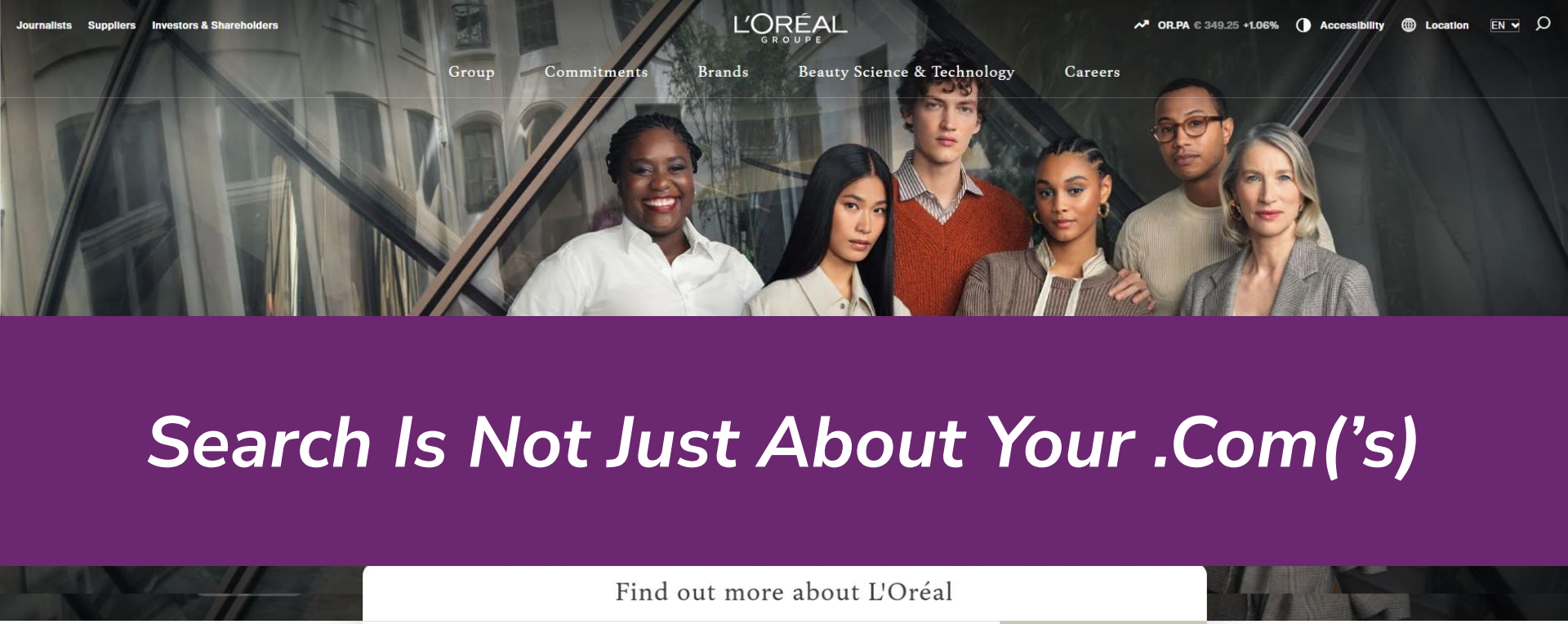
71%
Occurring on Smartphones

8%
MoM Increase

~5%
Occur In Retail

90%
AIO's Occur In US

*Based On 108.7MM Keywords Analyzed in Conductor

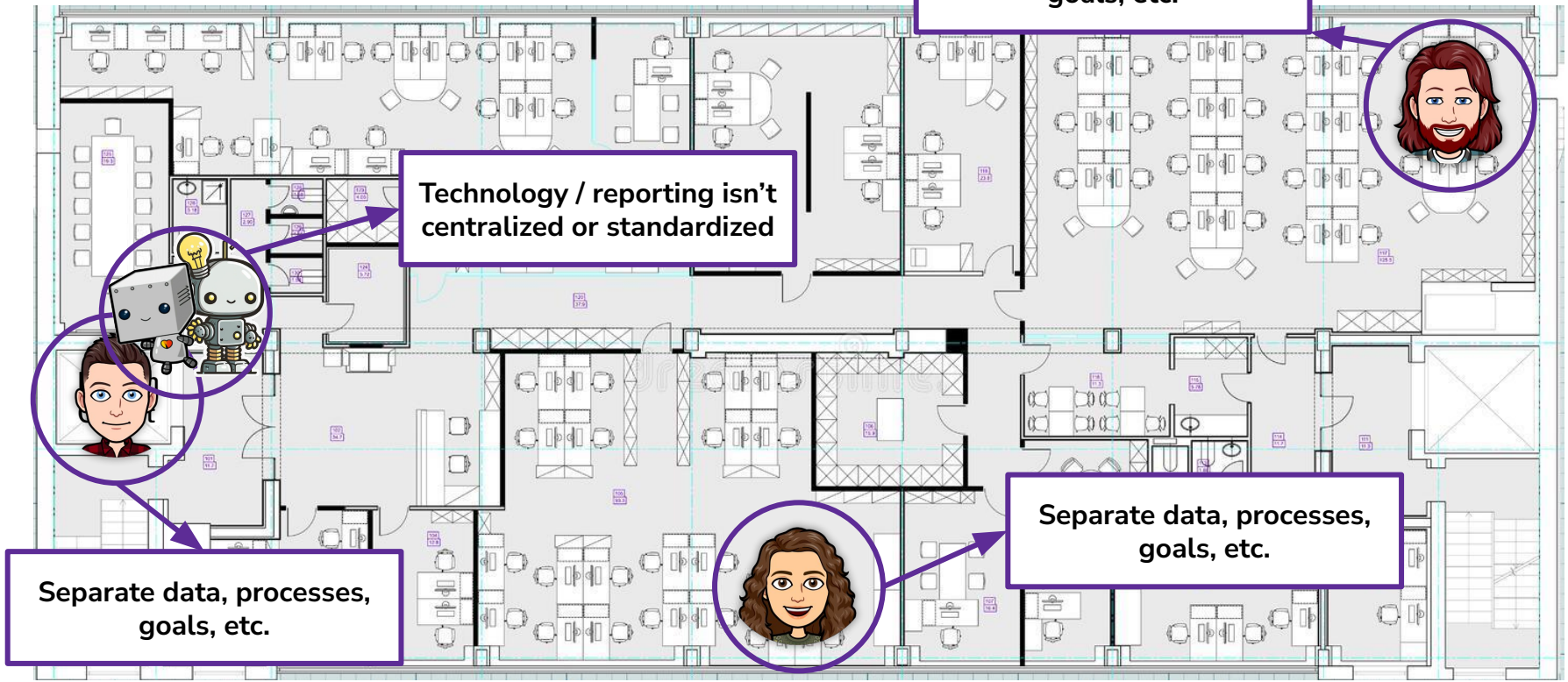


Search Is Not Just About Your .Com(’s)

Discover

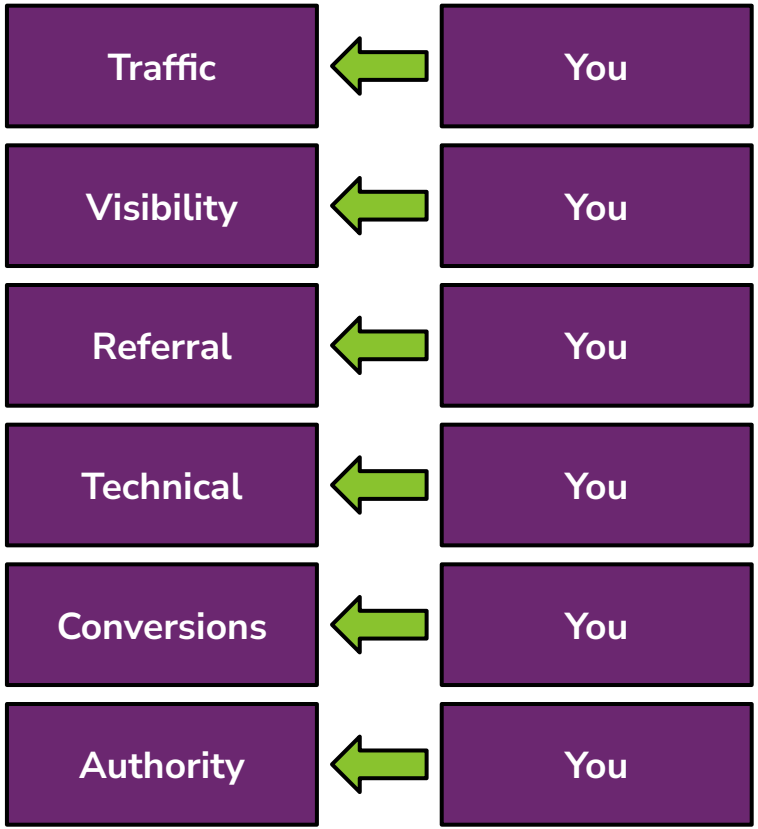
Our beautiful stories

L'Oréal has set itself the mission of offering all women and men worldwide the best of cosmetics innovation in terms of quality,


Separate data, processes, goals, etc.
Technology / reporting isn't centralized or standardized
Separate data, processes, goals, etc.
Separate data, processes, goals, etc.

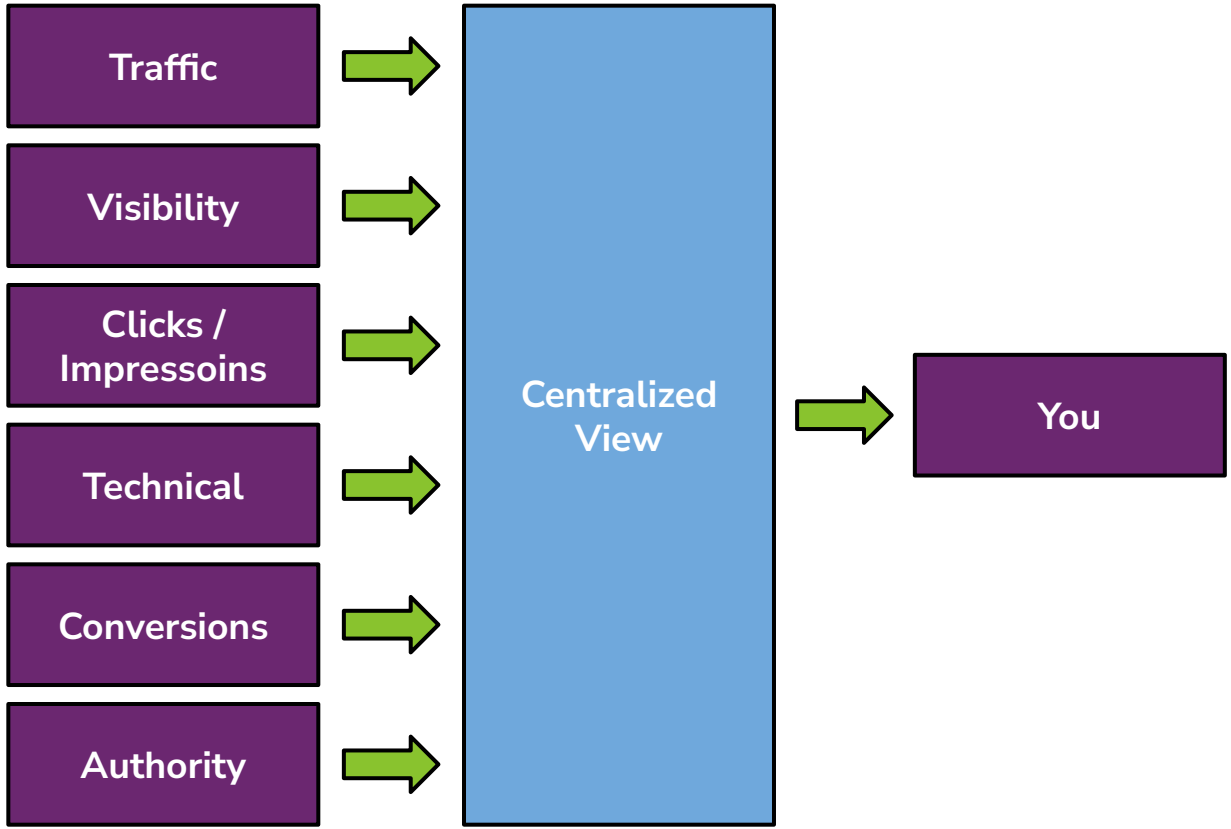
How You Look At Data Needs To Change

How You're Probably Doing It Today



How You Look At Data Needs To Change

How You Should Be Doing It



Data is at the centre of it all.

So how do you prepare your web data for this new world?

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Gartner

> **Without AI-ready data foundations** and practices, CIOs will be unable to deliver value from AI investments. In fact, **most CIOs struggle to create trusted data foundations** (i.e. data governance, data literacy, greater data collaboration) to enable AI-driven business outcomes.

Source: Gartner, February 17, 2025
The Top CIO Challenges, According to 12k+ of Your CIO Peers

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Data.world:

Knowledge Graphs provide **Higher Accuracy for LLM Responses** in Enterprises by **300%**

Source: data.world. (2023, November 13).
[A Benchmark to Understand the Role of Knowledge Graphs on Large Language Model Accuracy]

A BENCHMARK TO UNDERSTAND THE ROLE OF KNOWLEDGE GRAPHS ON LARGE LANGUAGE MODEL'S ACCURACY FOR QUESTION ANSWERING ON ENTERPRISE SQL DATABASES

TECHNICAL REPORT

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November 13, 2023

ABSTRACT

Enterprise applications of Large Language Models (LLMs) hold promise for question answering on enterprise SQL databases. However, the extent to which LLMs can accurately respond to enterprise questions in such databases remains unclear, given the absence of suitable Text-to-SQL benchmarks tailored to enterprise settings. Additionally, the potential of Knowledge Graphs (KGs) to enhance LLM-based question answering by providing business context is not well understood. This study aims to evaluate the accuracy of LLM-powered question answering systems in the context of enterprise questions and SQL databases, while also exploring the role of knowledge graphs in improving accuracy. To achieve this, we introduce a benchmark comprising an enterprise SQL schema in the insurance domain, a range of enterprise queries encompassing reporting to metrics, and a contextual layer incorporating an ontology and mappings that define a knowledge graph. Our primary finding reveals that question answering using GPT-4, with zero-shot prompts directly on SQL databases, achieves an accuracy of 16%. Notably, this accuracy increases to 54% when questions are posed over a Knowledge Graph representation of the enterprise SQL database. Therefore, investing in Knowledge Graph provides higher accuracy for LLM powered question answering systems.

Keywords Knowledge Graphs · Large Language Models · Question Answering · SQL Databases · Benchmark · Retrieval Augmented Generation (RAG)

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What is a Knowledge Graph?

A knowledge graph is a **structured** framework of organizing information that connects concepts, **entities**, and their **relationships**.

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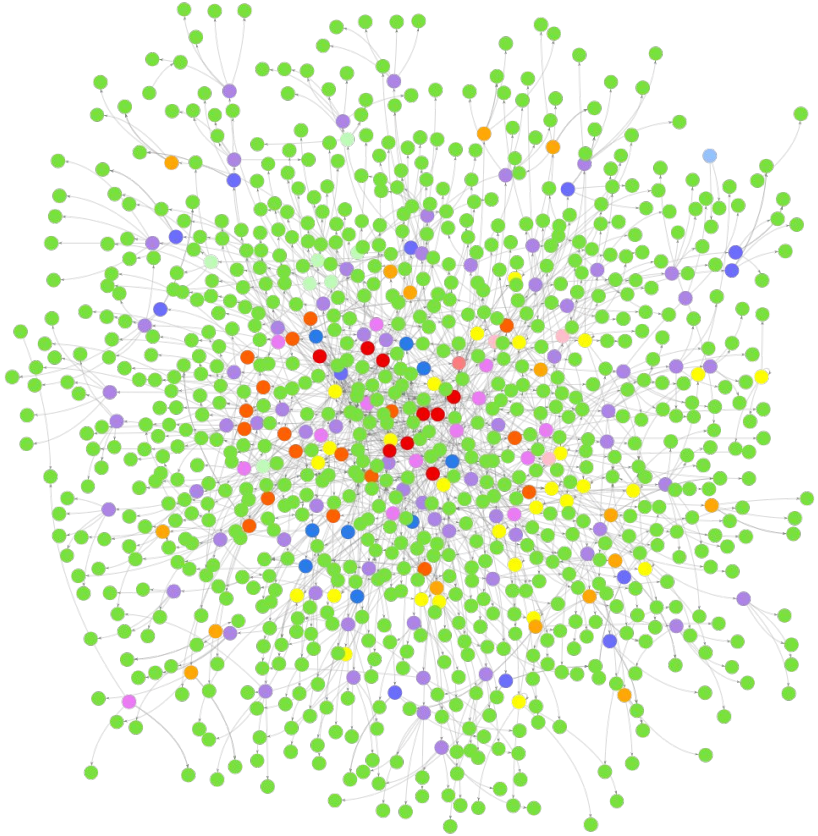
Schema Markup Builds a Knowledge Graph by Connecting Entities Across your Site



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Why Is Your Knowledge Graph Important?

Enhanced Search Engine Understanding

Search engines follow @id and understand the relationships; leading to richer search results and improved visibility.

Creating Semantic Meaning

Moving beyond just describing things to defining their meaning and relationships within a broader context.

No More Data Silos

Create a unified understanding of each entity and control how your content is understood by machines.

Future-Proofing Your Data

Your data becomes more organized and adaptable to new technologies and platforms.

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High quality data is the bedrock of AI success.

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Evolving Value of Schema Markup

Use Schema Markup to
Increased CTR from Rich Results

Use Schema Markup to do External Entity Linking to improve visibility &
Drive Disambiguation in Search

Use Schema Markup to connect the Entities on your site and
Build a Semantic Data Layer a.k.a. Content Knowledge Graph

Reuse the Content Knowledge Graph data layer to **Accelerate Content Insights**

Reuse the Content Knowledge Graph data layer to **Increase Efficiency of AI**

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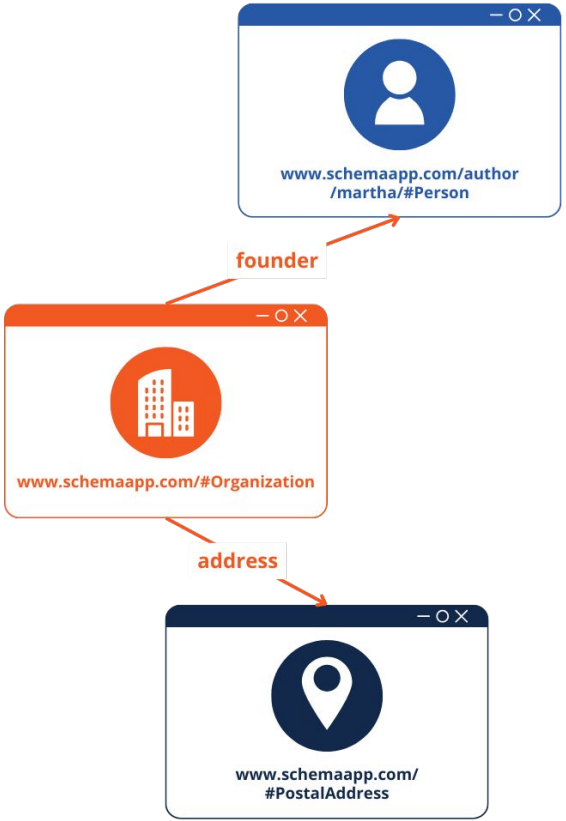
The `@id` Attribute

Key to Building a Knowledge Graph

- A unique, stable identifier for an entity
- Establishes the entity home, the primary source of truth on the internet
- Instead of repeating information on every page, @id creates a single, central definition of an entity, eliminating redundancy and improving data quality
- Enhances machine understanding by providing a structured reference, making it easier for search engines and AI to connect related content



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Semantic Schema Markup*

*** Simplified Illustrative data**

```
<script type="application/ld+json">
{
 "@context": "https://schema.org",
 "@type": "Organization",
 "@id": "https://www.schemaapp.com/#Organization",
 "email": " support@schemaapp.com ",
 "description": "Schema App is an end-to-end schema markup solution...",
 "name": "Schema App",
 "url": " https://www.schemaapp.com/ ",
 "potentialAction": [
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    "@id": "https://www.schemaapp.com/book-a-demo/#ScheduleAction",
    "name": "Schedule a Demo",
    "url": " https://www.schemaapp.com/book-a-demo/ "
    "target": {
       "@type": "EntryPoint",
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    ]
 ],
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    "@type": "Person",
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    "name" : "Martha van Berkel"
 ],
 "address": {
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    "@id": "https://www.schemaapp.com/#PostalAddress",
    "addressRegion": "Ontario",
    "addressCountry": "Canada",
 }
}
</script>
```

Schema Markup to achieve ***Rich Results***

Schema Markup to build a ***Content Knowledge Graph***

None of this is new.

The semantic web has been a vision since the 90s.

Authors of the original Semantic Web article
Tim Berners Lee, Ora Lassila & James Hendler

How is the role of SEO changing?

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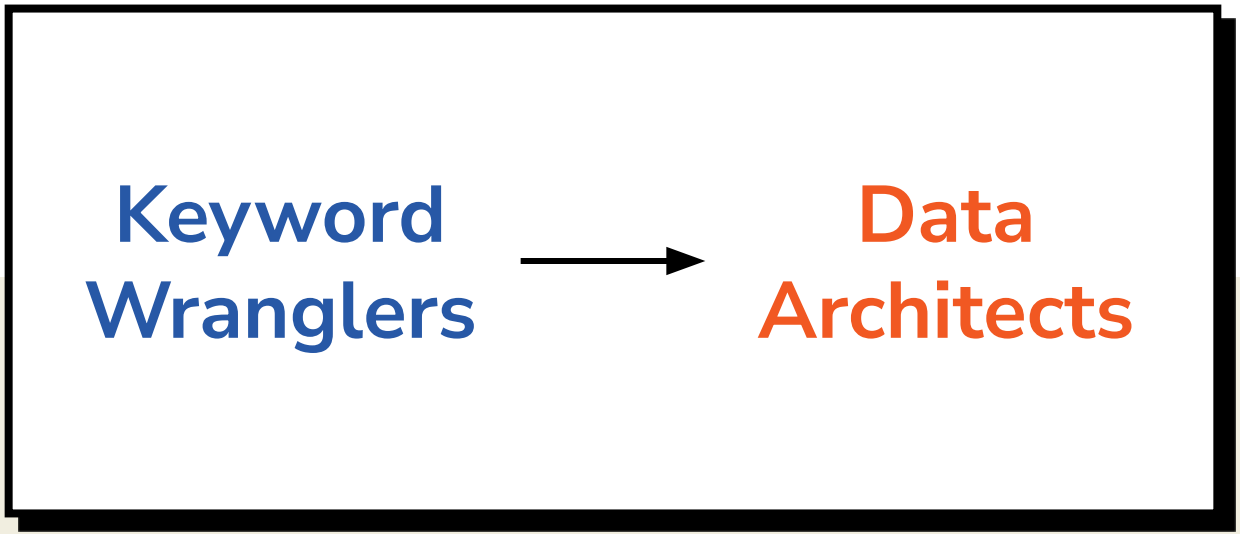
The Evolution of SEO in the Age of AI



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Changing Role of the SEO

- Design and Build Knowledge Graphs
- Optimize for Agents, Not Just Algorithms
- Curate and Connect Data
- Understand the Semantic Web
- Be the voice of search engines and the user

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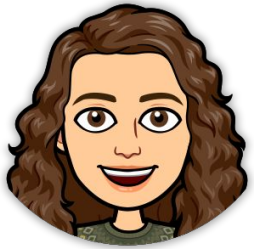
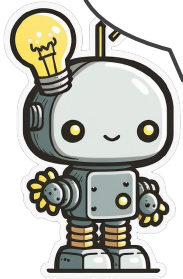
Do’ers To Influencers

SEO Has Changed From A Singular Profession To A Company-Wide Practice

Best Practices / Tactics



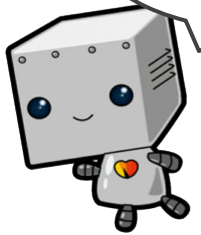
Tech Enablement



I can help you research + write content

Best Practices / Tactics

Tech Enablement



I can help you monitor your site

Talk To:

- ✓ Executives
- ✓ Individual Leadership (Content, Technical, etc.)
- ✓ Individual Contributors

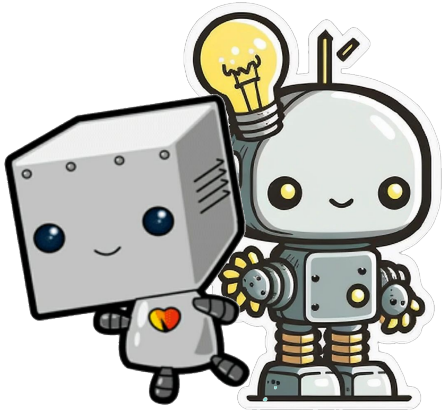
Focus On:

- ✓ Building Process & Efficiencies
- ✓ Building Brand Authority (Search, Video, Forum Discussions, etc.)

Do Not:

- ✓ Get Too Far Into The Weeds / Overcomplicate

TECH

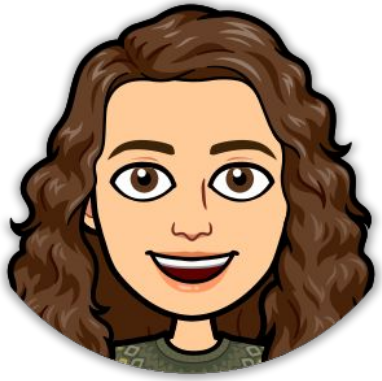


Enabling Process + Governance Across The Organization

SEO

Education, Evangelism, Process

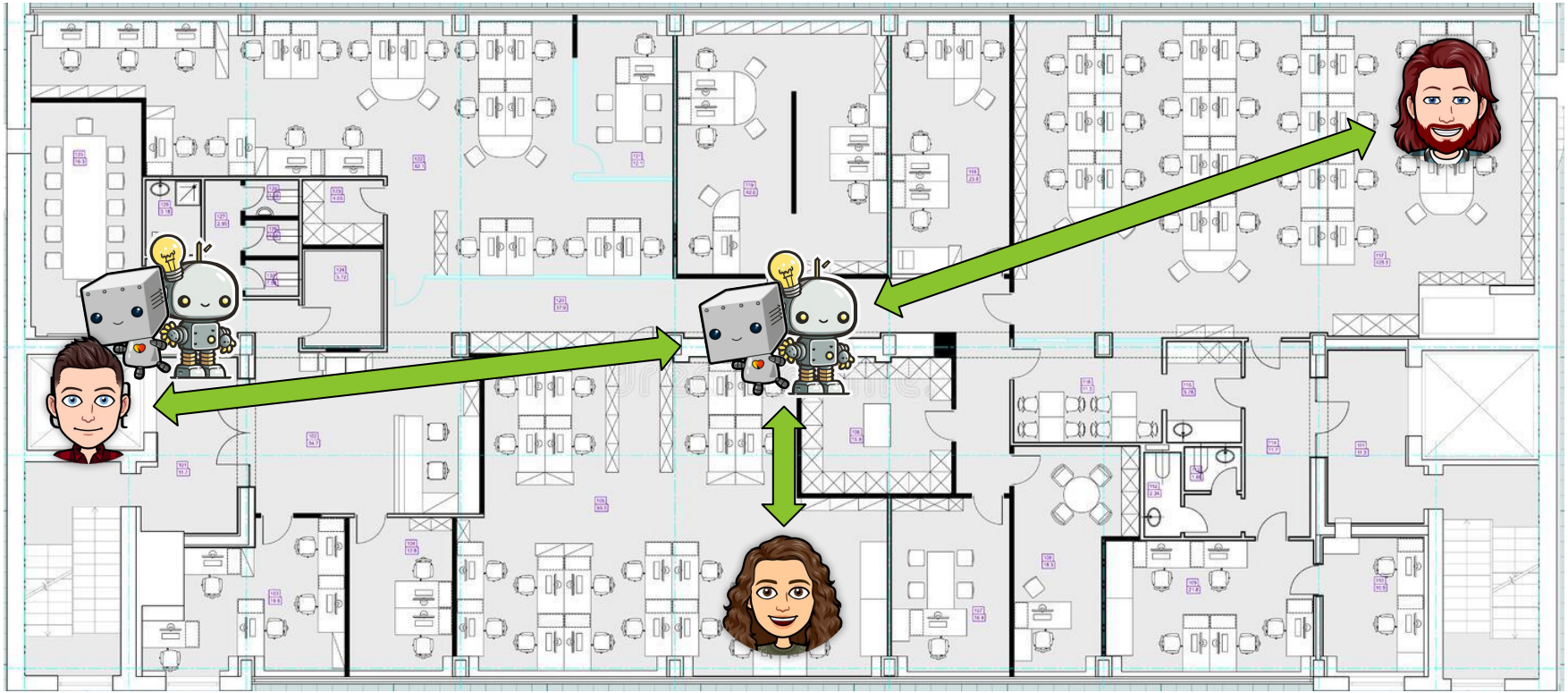
CONTENT



Content Creation / Updates

DEV

Tech Fixes / Implementation



Thank You!
Questions?

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Register for my monthly 30|30 webinars

Scan the QR code to register for the series →

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Download our Guide to Entities and Knowledge Graphs

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