

# To Site Search & Beyond

Joe Izenman



**G E A R L A B**



**WHAT IS SEARCH FOR?**

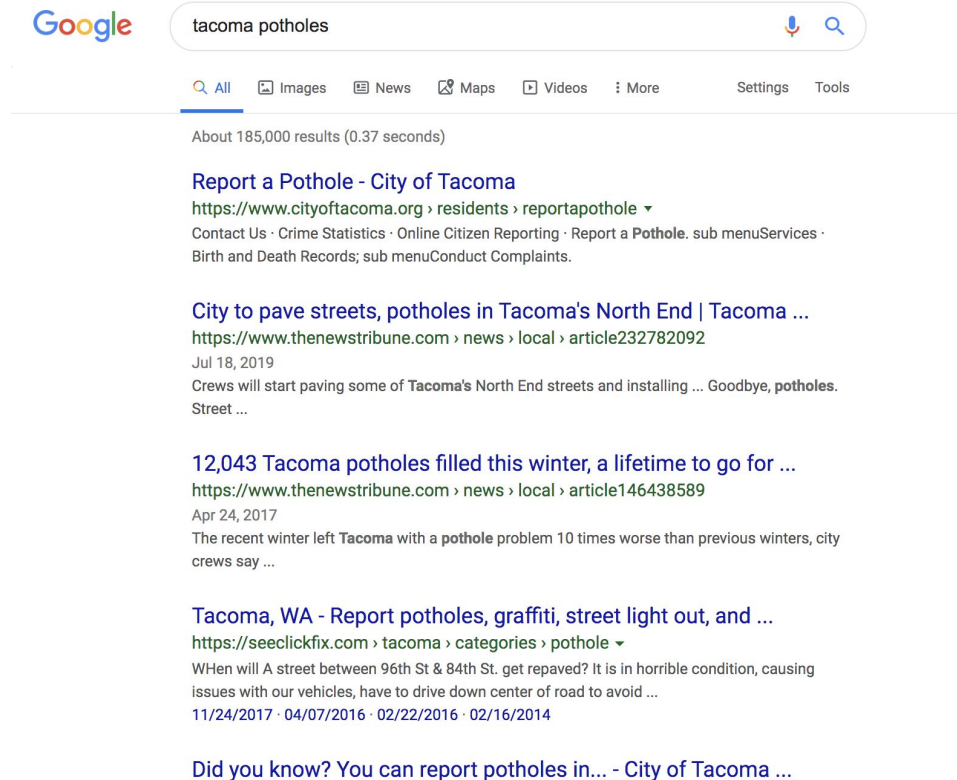
# What is your website for?

**INFORMATION**

|

**ENGAGEMENT**

# How do users find information?



Google

tacoma potholes

All Images News Maps Videos More Settings Tools

About 185,000 results (0.37 seconds)

**Report a Pothole - City of Tacoma**  
<https://www.cityoftacoma.org> › residents › reportapothole  
Contact Us · Crime Statistics · Online Citizen Reporting · Report a Pothole. sub menuServices · Birth and Death Records; sub menuConduct Complaints.

**City to pave streets, potholes in Tacoma's North End | Tacoma ...**  
<https://www.thenewstribune.com> › news › local › article232782092  
Jul 18, 2019  
Crews will start paving some of Tacoma's North End streets and installing ... Goodbye, potholes. Street ...

**12,043 Tacoma potholes filled this winter, a lifetime to go for ...**  
<https://www.thenewstribune.com> › news › local › article146438589  
Apr 24, 2017  
The recent winter left Tacoma with a pothole problem 10 times worse than previous winters, city crews say ...

**Tacoma, WA - Report potholes, graffiti, street light out, and ...**  
<https://seeclickfix.com> › tacoma › categories › pothole  
When will A street between 96th St & 84th St. get repaved? It is in horrible condition, causing issues with our vehicles, have to drive down center of road to avoid ...  
11/24/2017 · 04/07/2016 · 02/22/2016 · 02/16/2014

**Did you know? You can report potholes in... - City of Tacoma ...**

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# City of Tacoma

WASHINGTON

RESIDENTS

SERVICES

GOVERNMENT

BUSINESS

VISITORS

<p>► <b>Birth and Death Records</b></p> <p>Request a birth or death record</p>	<p>► <b>Homeowner Assistance Programs</b></p> <p>Home repair, rehab loans, and homebuyer programs</p>	<p>► <b>Police Protection</b></p> <p>Learn about Tacoma Police Department services</p>
<p>► <b>Call-2-Haul</b></p> <p>Schedule a collection of large household items</p>	<p>► <b>Landlord-Tenant Services</b></p> <p>Dispute resolution programs, training and referrals</p>	<p>► <b>Special Event Permits</b></p> <p>Submit a request for a special event permit</p>
<p>► <b>Community Based Services</b></p> <p>Help improve and preserve your neighborhood</p>	<p>► <b>Library Services</b></p> <p>Learn about what's going on at your local Public Library</p>	<p>► <b>Street Operations</b></p> <p>Street maintenance and other Public Works services</p>
<p>► <b>Community Liaison Officers</b></p> <p>Connect with your Community Liaison Officer</p>	<p>► <b>Municipal Court</b></p> <p>Learn about Court services and pay citations online</p>	<p>► <b>Tacoma EnviroNews</b></p> <p>Sign up for the environmental news listserv</p>
<p>► <b>Fire and EMS Services</b></p> <p>Learn about Tacoma Fire Department services</p>	<p>► <b>Online Services</b></p> <p>Access an interactive list of City services</p>	<p>► <b>Tacoma Public Utilities</b></p> <p>Power and water services</p>
<p>► <b>Graffiti Cleanup</b></p> <p>Learn about ways you can help combat graffiti</p>	<p>► <b>Parking Services</b></p> <p>Get information on parking options around the city</p>	<p>► <b>TAGRO</b></p> <p>Learn about TAGRO products for your lawn and garden</p>

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**City of Tacoma**  
WASHINGTON

RESIDENTS SERVICES GOVERNMENT BUSINESS VISITORS

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**City of Tacoma**  
WASHINGTON

RESIDENTS SERVICES GOVERNMENT BUSINESS VISITORS

potholes

**SHOWING 1 - 10 OF 10 RESULTS** **SORT BY: RELEVANCE DATE**

- Report a Pothole** (Jul 1, 2015)
- Street Operations** (Oct 20, 2017)
- Contacts and Services** (Nov 13, 2018)
- Home** (Feb 22, 2019)
- Residents** (Oct 5, 2015)  
Main landing page for the Residents section
- Tacoma Streets Initiative** (Aug 1, 2017)
- Transportation Benefit District** (Feb 10, 2017)
- District 4 Prop. 1 Facts and Information Session Oct. 9** (Oct 3, 2013)
- Bicycle Resources** (Feb 14, 2019)
- Bid Results** (Jun 11, 2019)

# How do users find information?

Up to

60%

start on an interior page from organic search.

Roughly

10%

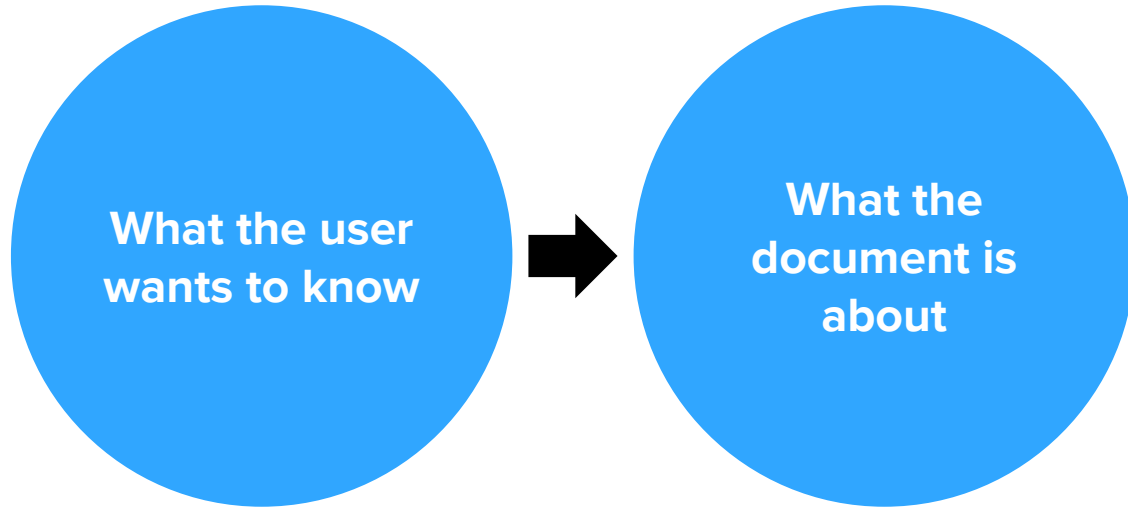
go straight to search from the home page.

Less than

5%

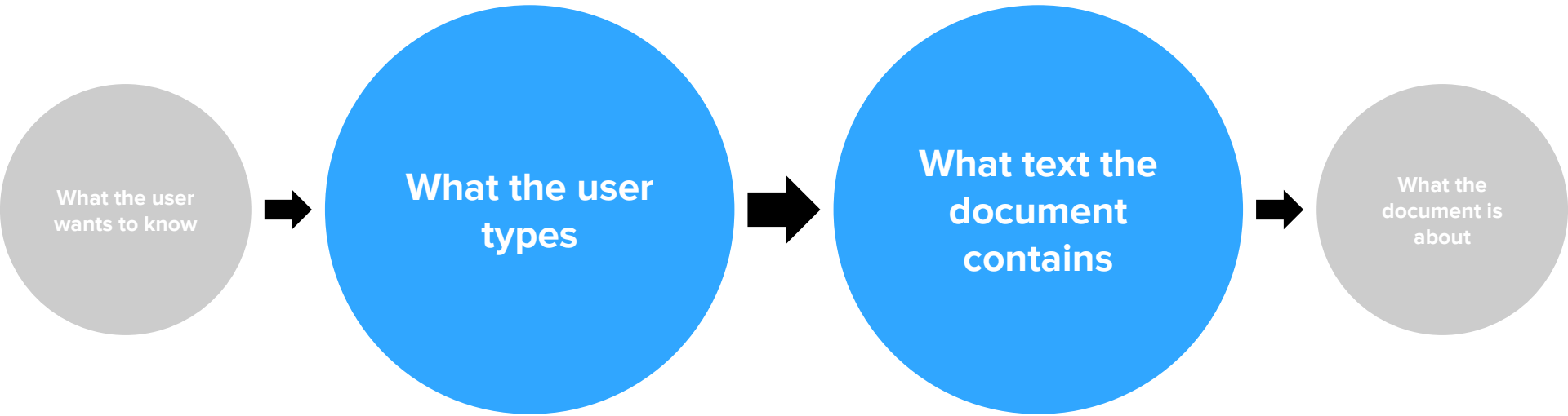
of page views are immediately preceded by a search.

# What does search need to do?

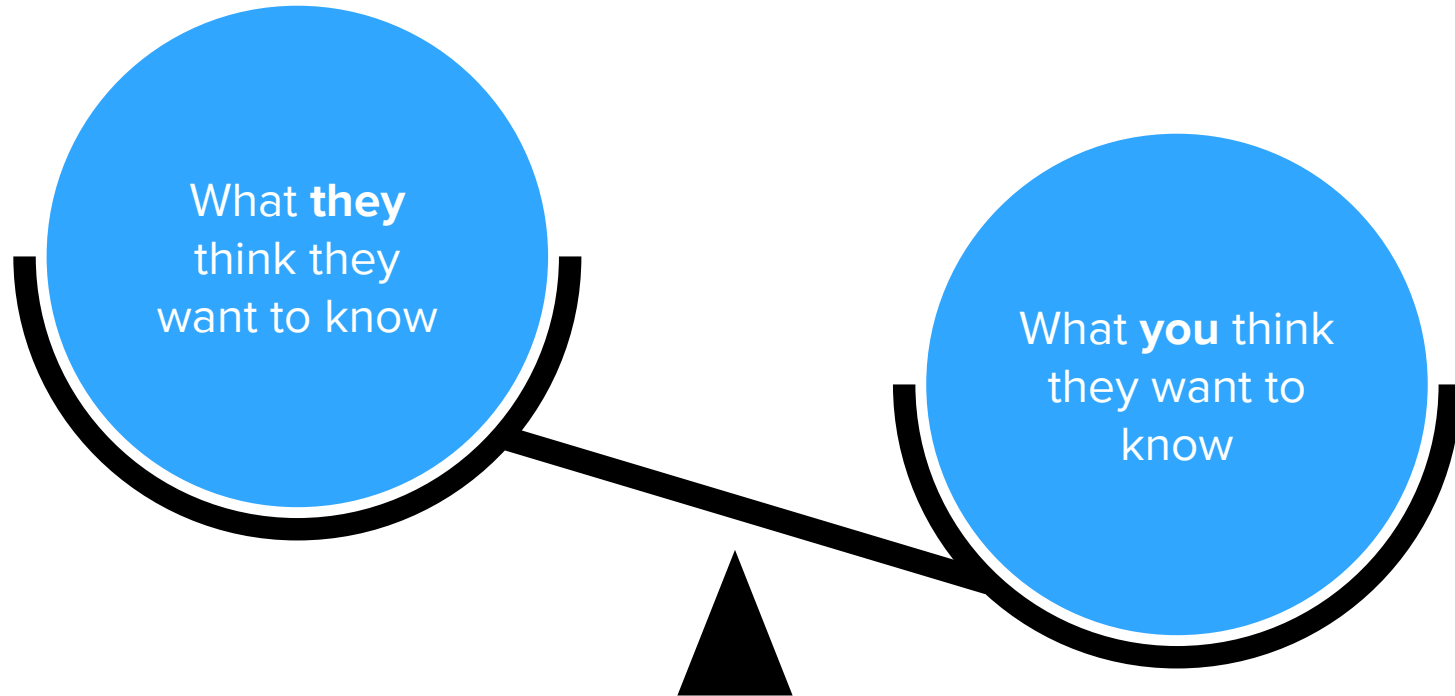




# What does search need to do?



# What does search need to do?





# **MEASURING SUCCESS**

How do I know if my  
**current search** is  
**broken?**

How do I know if  
**another search** is  
**better?**

# Search Success Metrics

## Analytics

- Highest sample size

## Site Surveys

- Behavioral context

## User Testing

- Automatable

## Anecdotal

- Uncertain intent

# Search Success Metrics

## Analytics

- Automated & Inexpensive

## Site Surveys

- (Some) Confirmation of intent

## User Testing

- Explanation of issues

## Anecdotal

- Biased response rate

# Search Success Metrics

## Analytics

- Low sample size

## Site Surveys

- Controlled setting

## User Testing

- Predefined intent

## Anecdotal

- Artificial circumstances

# Search Success Metrics

## Analytics

- $N = 1$

## Site Surveys

- Risk of knee-jerk reaction

## User Testing

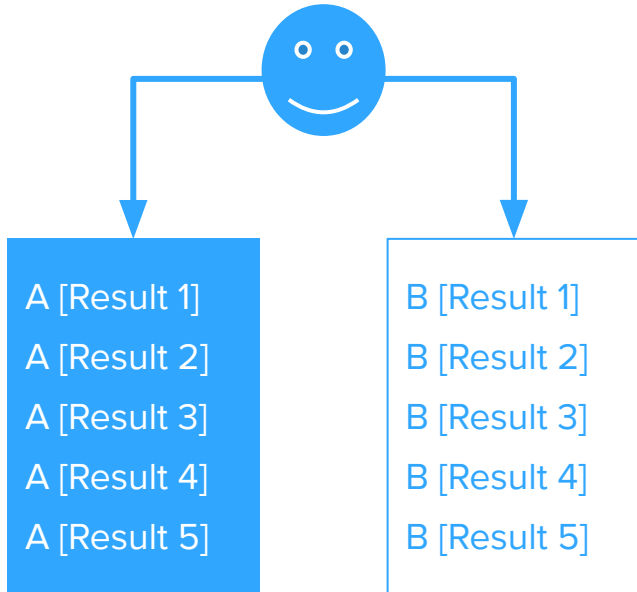
- Surfaces low-frequency, high-impact issues

## Anecdotal

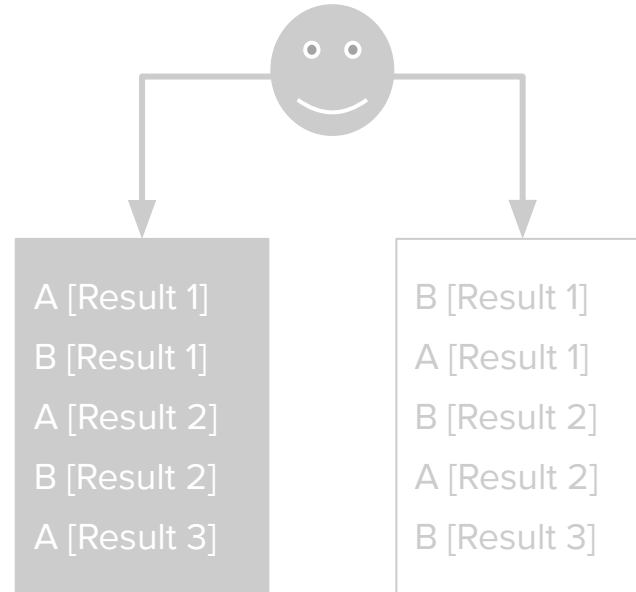


# Statistical Comparisons

## A/B Testing

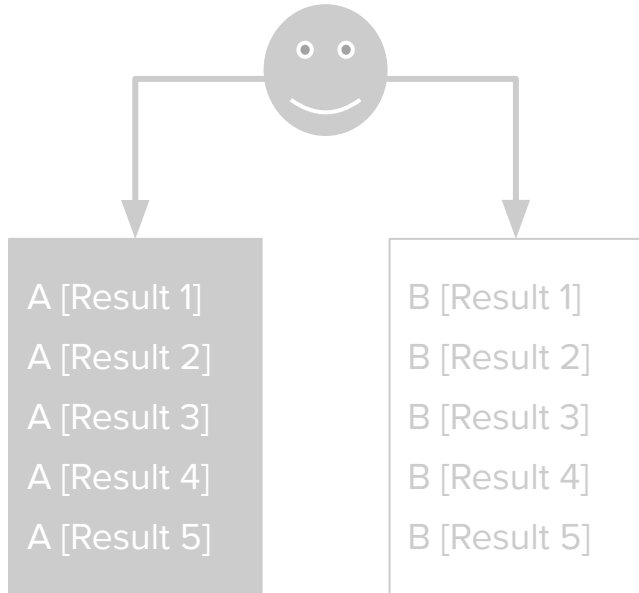


## Interleaving

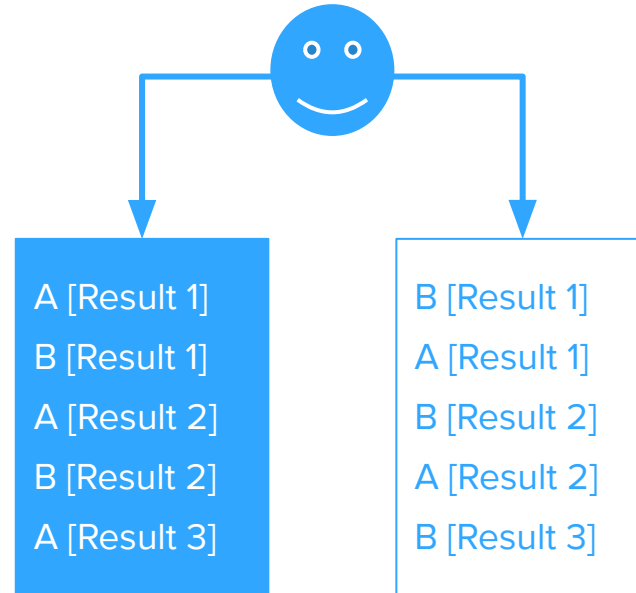


# Statistical Comparisons

## A/B Testing



## Interleaving





# **THE SEARCH FOR SEARCH**

# Search Options

Built-In  
CMS  
Search

Search  
as a  
Service

In-House  
Custom  
Tooling

# Built-In CMS Search

## Yes!

- Direct content access
- Hidden metadata
- Instant indexing

## Nooooooo!

- Limited text analysis
- Multiple systems
- Complex queries

# Search as a Service

## Yes!

- Built by search experts
- All systems can be one
- Sees what the user sees

## Nooooooo!

- External content access
- Lagged indexing
- Sees what the user sees

# In-House Custom Tooling

## Yes!

- Maximum flexibility
- Content expertise
- Unlimited tuning

## Nooooooo!

- Maximum effort
- Minimum Reusability
- Unlimited tuning

# Striking a Balance

The best search products leverage **site-agnostic** technical expertise, that can be refined to the peculiarities of **your content**.





**UNDER THE HOOD**

# Search-Side Tuning

Field Boosting

Term Boosting

Synonyms

Transformations

# Search-Side Tuning

Field Boosting

Term Boosting

Synonyms

Transformations

# Search-Side Tuning

Field Boosting

Term Boosting

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Transformations

# Search-Side Tuning

Field Boosting

Term Boosting

Synonyms

Transformations

# Content-Side Tuning

Internal SEO

Meta Content

Term Taxonomy

Thoughtful Structure

# Content-Side Tuning

Internal SEO

Meta Content

Term Taxonomy

Thoughtful Structure

# Content-Side Tuning

Internal SEO

Meta Content

Term Taxonomy

Thoughtful Structure



# Content-Side Tuning

Internal SEO

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Thoughtful Structure

# The Dangers of Over-Tuning

What is best for **one page** is often worst for the site **as a whole**.



**...AND BEYOND**

**The crawl is running.**  
**The site is indexed.**

**Now what?**

# Content Governance

SEO Evaluation

Content Policy

Duplicate Content

Vocabulary Management

# Content Governance

SEO Evaluation

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Duplicate Content

Vocabulary Management

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SEO Evaluation

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Duplicate Content

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# Page Health

Update Schedule

Analytics Patterns

Time Sensitivity

Survey Analysis

# Page Health

Update Schedule

Analytics Patterns

Time Sensitivity

Survey Analysis

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Analytics Patterns

Time Sensitivity

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# Content Recommendations

Named Entities

Suggested Links

Content Grouping

Content Inventory

# Content Recommendations

Named Entities

Suggested Links

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# G E A R L A B

## Questions?

**Joe Izenman**

[joe@gearlabnw.com](mailto:joe@gearlabnw.com)

253.272.2248

[www.gearlabnw.com](http://www.gearlabnw.com)

@izenmania