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Joel Headley



Joel Headley & Andy Chu



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DIRECTOR OF LOCAL SEO AND MARKETING

Over a decade at Google in product operations Product Manager and Local SEO Expert @headley 💆

PRODUCT MANAGER

3.5 years in product management PM for Patient Feedback @DeltaSpark >



INTRODUCTION TO PATIENTPOP

To Help All Practices Thrive

- We build performance driven websites
- We integrate with a medical office's calendaring system to offer online appointments & appointment reminders
- We gather feedback from patients about their office visit

HOW TO BE DATA-INFORMED

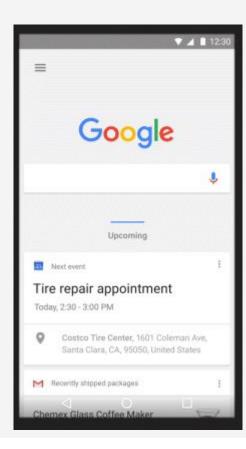
THE IDEAL

Store all things

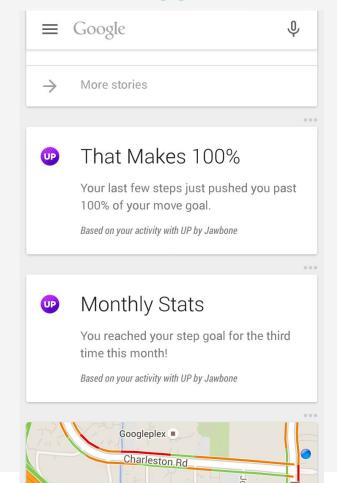
Read all things

Answer any question

GOOGLE NOW: OFFERING A CONTEXTUAL, ASSISTIVE EXPERIENCE



INCREASE USER ENGAGEMENT WITH YOUR APP



THE IDEAL OF STORAGE AND RETRIEVAL



Q Search

Publications People Teams Outreach Blog Work at Google

Dremel: Interactive Analysis of Web-Scale Datasets

Venue

Proc. of the 36th Int'l Conf on Very Large Data Bases (2010), pp. 330-339

Publication Year

2010

Authors

Sergey Melnik, Andrey Gubarev, Jing Jing Long, Geoffrey Romer, Shiva Shivakumar, Matt Tolton, Theo Vassilakis

Abstract





Dremel is a scalable, interactive ad-hoc query system for analysis of read-only nested data. By combining multi-level execution trees and columnar data layout, it is capable of running aggregation queries over trillion-row tables in seconds. The system scales to thousands of CPUs and petabytes of data, and has thousands of users at Google. In this paper, we describe the architecture and implementation of Dremel, and explain how it complements MapReduce-based computing. We present a novel columnar storage representation for nested records and discuss experiments on few-thousand node instances of the system.

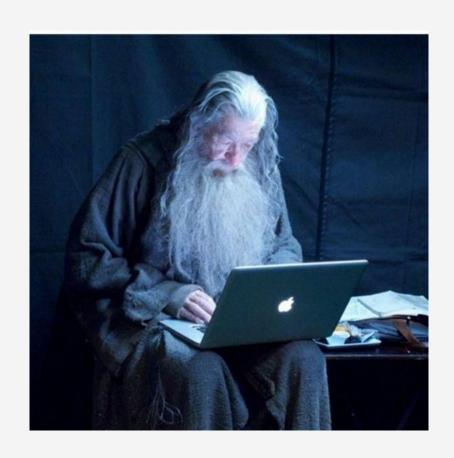
THE IDEAL

Store all things

Read all things

Answer any question

BUT THAT'S GOOGLE AND I'M NOT GOOGLE



THE REALITY

Focus on the question

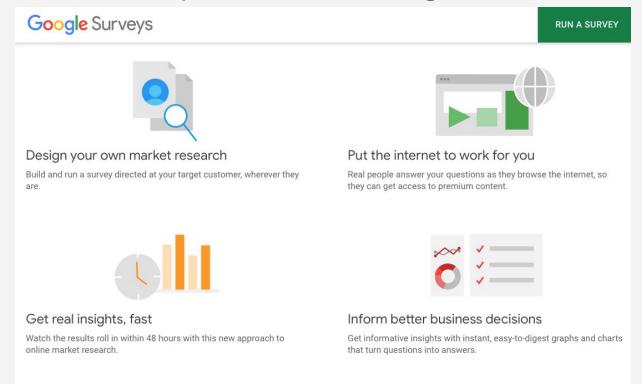
Choose your metrics

Grab those metrics

SURVEYS

SURVEYS CAN VALIDATE ASSUMPTIONS

When there are imperfect data, do *light* market research.



DEVELOP SURVEY QUESTIONS THAT VALIDATE ASSUMPTIONS

How did you first learn about your child's pediatrician?

 What research did you perform prior to selecting your child's pediatrician?

SURVEYS CAN VALIDATE ASSUMPTIONS

- How did you first learn about your child's pediatrician?
 - > 70% was a personal recommendation

- What research did you perform prior to selecting your child's pediatrician?
 - > 50% did online research

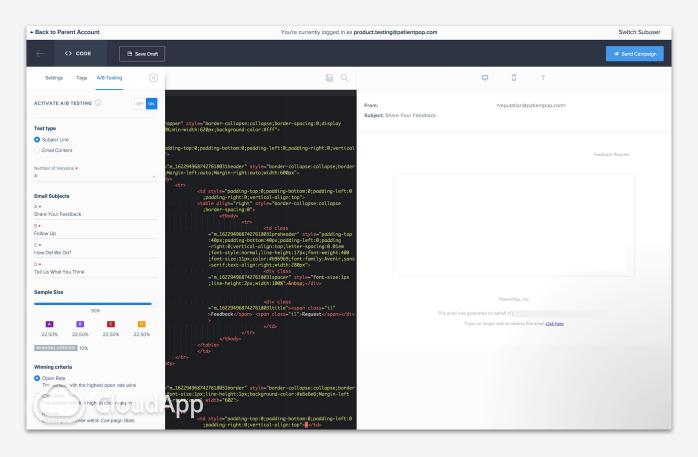
TEST ANYWHERE

TEST IDEAS OUTSIDE OF YOUR PRODUCT

If you can't change the code, find another way.

 How do you improve how many patients share feedback after receiving an email?

TEST IDEAS OUTSIDE OF YOUR PRODUCT



TEST IDEAS OUTSIDE OF YOUR PRODUCT

If you can't change the code, find another way.

- How do you improve how many patients share feedback after receiving an email?
 - Change the subject line
 - Personalize the signature
 - Don't change the UI design

Conversion rate increased by 600%.

FEATURE FLAGS

VALIDATE PRIOR TO RELEASE, LITTLE BY LITTLE, WITH FEATURE FLAGS

Release to a subset

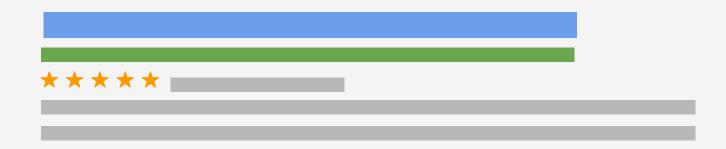
Start small and grow



WHY STRUCTURED DATA?

Provide relevance

Drive search features



SMALL SCALE RESULTS EMBOLDEN FURTHER EXPANSION

- Single site
 - 400% increase in click thru rate, (a single page) Ranking improved (!?)
- 200 sites
 - Sites appearing with stars grew from < 5% to > 60%

 4x increase in pages/site with rich snippets
- Full release (thousands of sites)

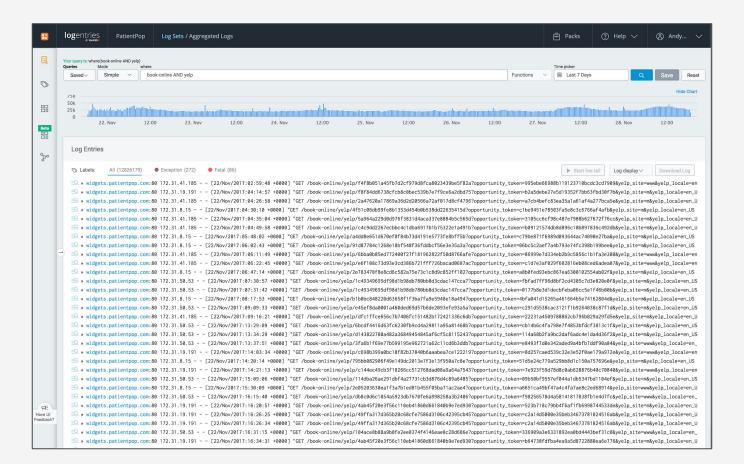
ANY DATA SOURCE

FIND ALTERNATE SOURCES OF ANALYTICS DATA

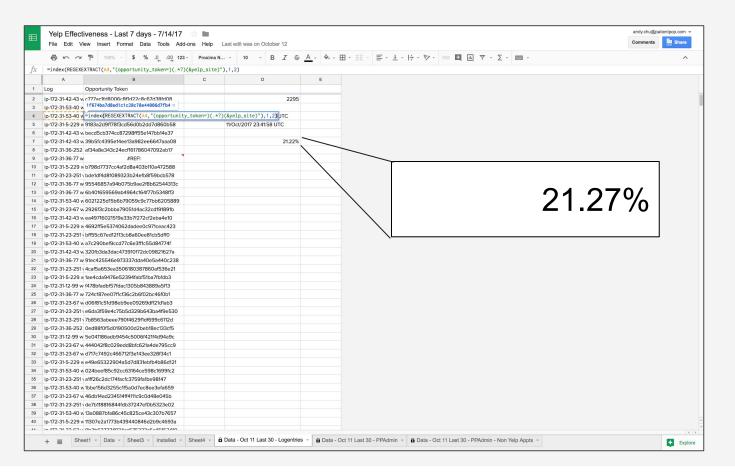
If you can't find the data, try looking in other sources.

 Are patients more likely to book an appointment using their mobile or desktop on Yelp?

USE ALTERNATE SOURCES OF ANALYTICS DATA



USE ALTERNATE SOURCES OF ANALYTICS DATA



FIND ALTERNATE SOURCES OF ANALYTICS DATA

If you can't find the data, try looking in other sources.

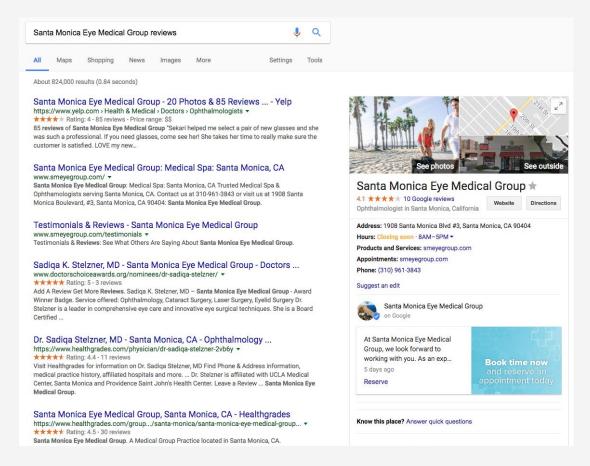
- Are patients more likely to book an appointment using their mobile or desktop on Yelp?
 - They are more likely to finish booking an appointment on desktop than mobile.

Design for mobile, but design search for desktop.

1, 2, 3, 4 . . .



PROVIDER PROFILES & THEIR IMPORTANCE



TAKE TIME TO COUNT

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Yes	*	3	*	N/A	*	*	Yes	, -	7	*	Yes	•	4	w	Yes	•	5	*	N//	٠.		*	N/A	+	-	N/A	+	*	N/A	*	*	N/A	*	*	N/A	*	*
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Vaa		4	_	NIA			NUA			_	NIZA	_		_	Vaa	-	0		N17			120	NI/A			NIA	-	_	NI/A	-		NUA	_	_	NI/A	-	

A TARGET LIST OF CITATION SITES

Yelp
Facebook
Healthgrades
WebMD
Yellow Pages
Angie's List
Mapquest
Vitals
Yahoo
Locality
Better Business Bureau (BBB)

YOUR FIVE TIPS

REMEMBER TO DRIVE BUSINESS GOALS

• Surveys can validate assumptions

Test ideas outside of your product

Validate prior to release with feature flags

Find alternate sources of analytics data

• Take time to count



WANT TO WORK WITH US?

Product Manager • UI/UX Designer • Data Engineer

DevOps Engineer • Site Reliability Engineer • Software Engineer



QUESTIONS?