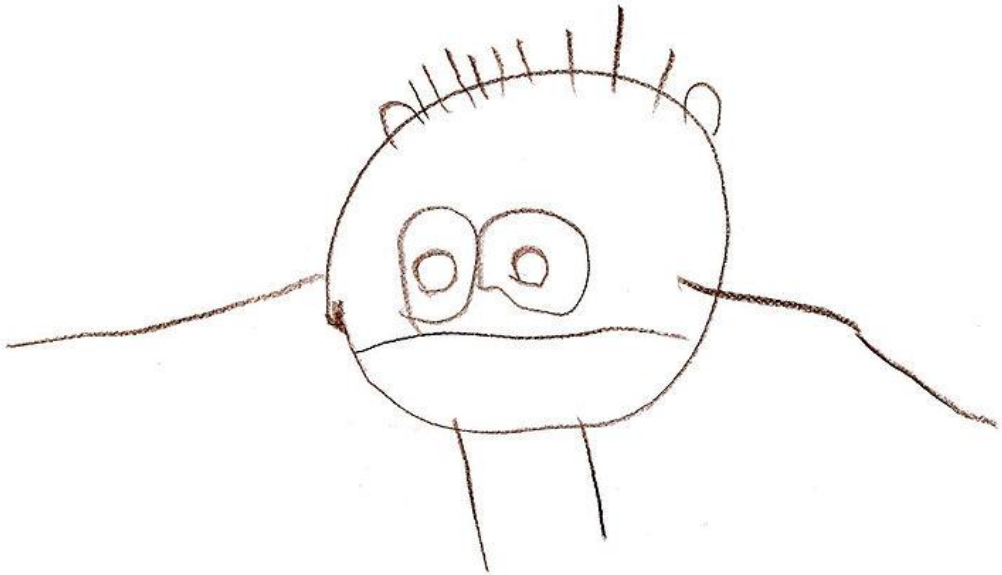
Google
Machine Learning to the rescue
The age of acceleration & assistance



Confidential + Proprietary

Proprietary + Confidential

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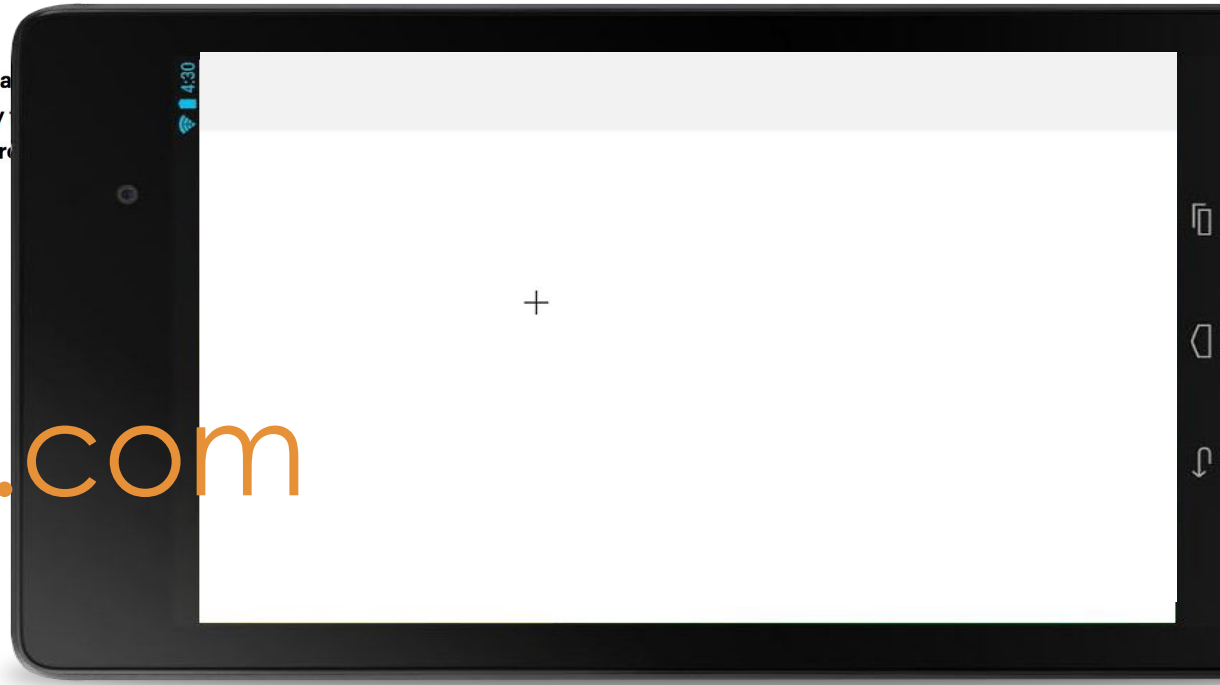
Turn your doodles into ART: Google launches free Autodraw tool that transforms clumsy scribbles

- AutoDraw software uses machine learning to recognise wha
- You can then replace your efforts with images submitted by
- It can currently make hundreds of guesses but this will impr



Lets Try!

autodraw.com

Google

Cherios!
I am an aeroplane
running out of FUEL!

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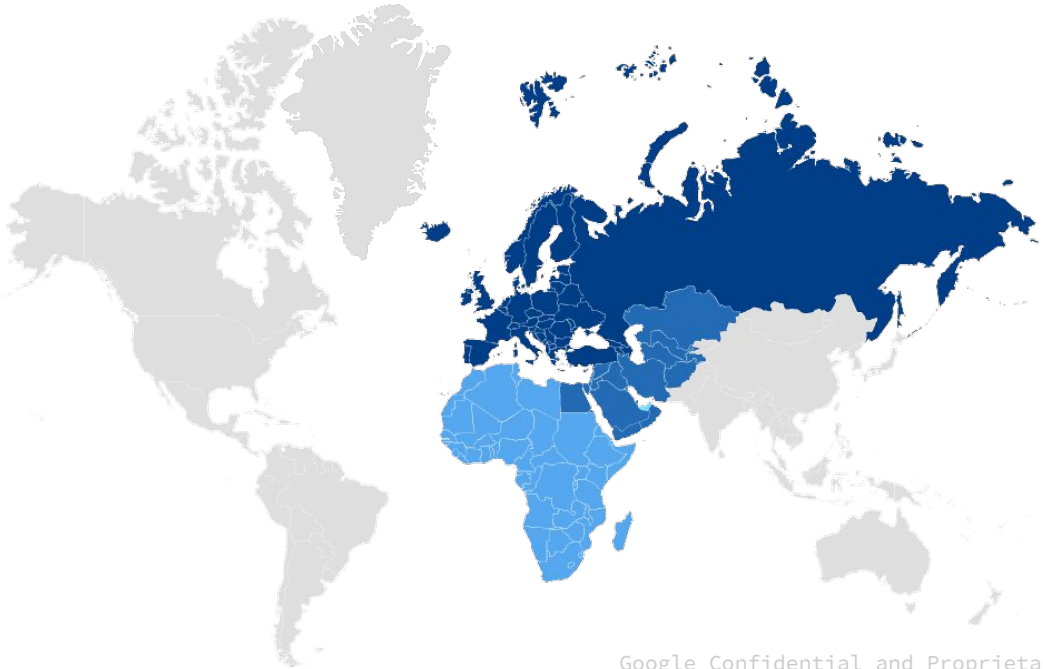
Hello! I am Matz

Google Attribution Product Lead



Google Confidential and Proprietary

https://www.youtube.com/watch?v=Q70ulPJW3Gk

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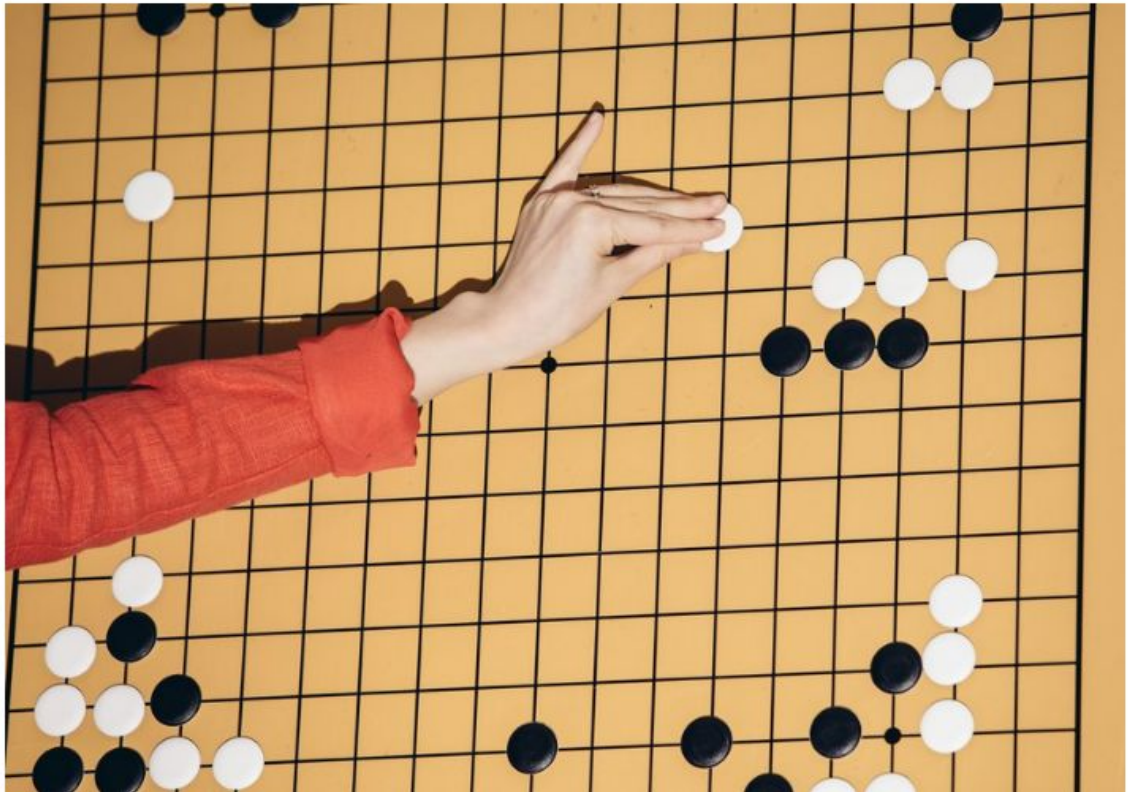
"WE WILL MOVE FROM MOBILE-FIRST TO AN AI-FIRST WORLD"

SUNDAR PICHAI, December 2016

CADE METZ BUSINESS 03.15.16 5:01 AM

GOOGLE'S AI WINS FIFTH AND FINAL GAME AGAINST GO GENIUS LEE SEDOL



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Google

DeepMind

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“The perfect search engine should understand exactly what you mean and give you back exactly what you need.”

- Larry Page

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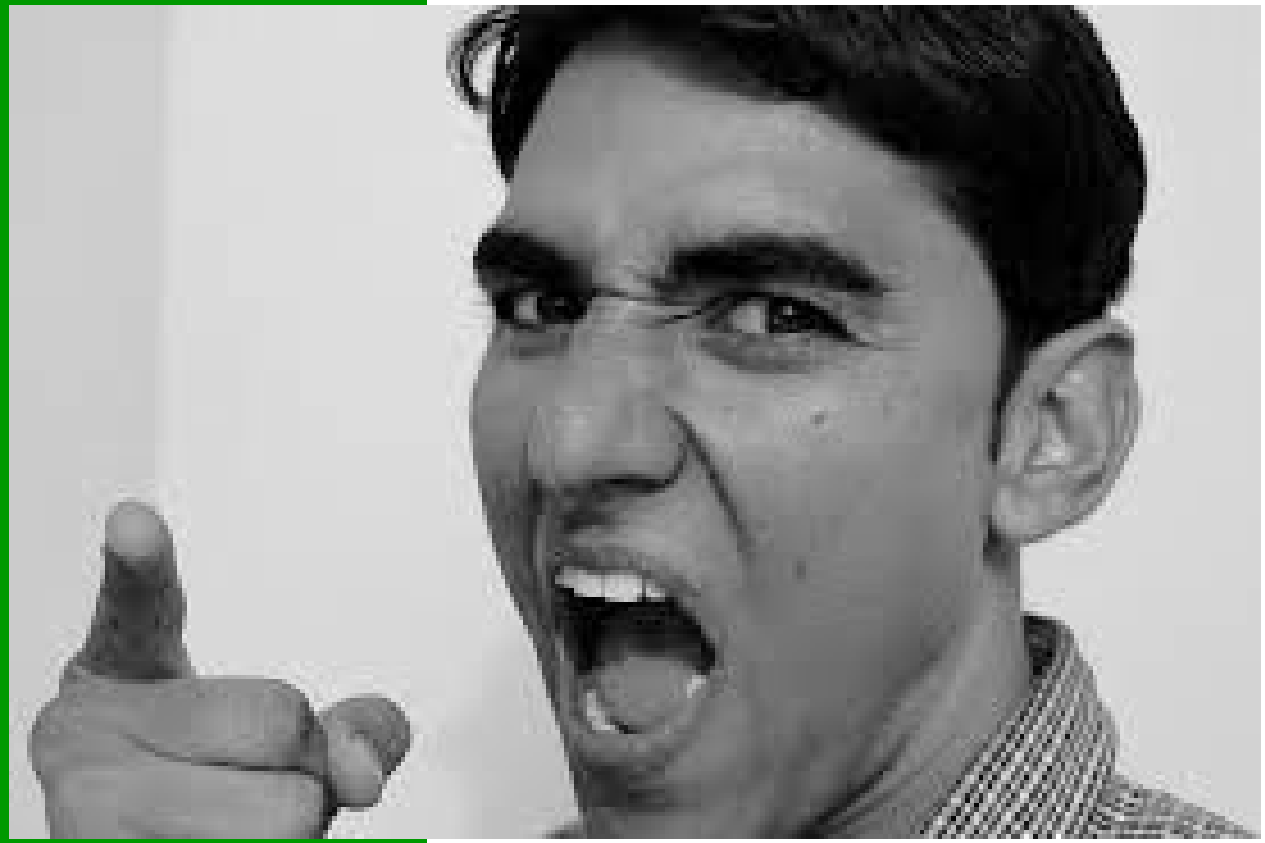
Let's Demystify.....

ROHAN



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Never Pleasant!

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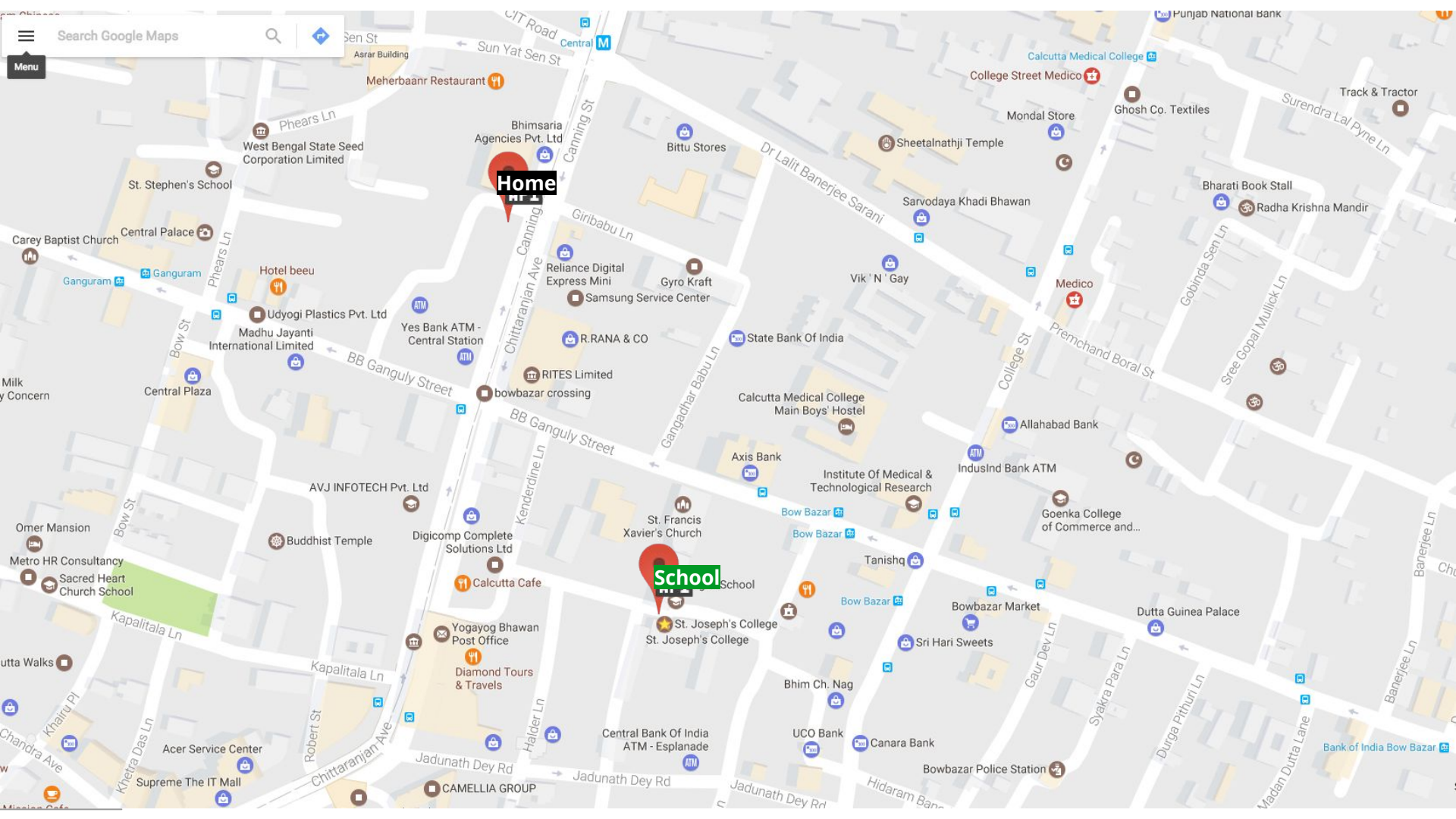
Exposure ↑ = ↓ Well being


Search Google Maps
Menu
Home
School
Punjab National Bank
Calcutta Medical College
College Street Medico
Ghosh Co. Textiles
Track & Tractor
Mondal Store
Surendra Lal Pyne Ln
Meherbaanr Restaurant
Asrar Building
Sun Yat Sen St
CIT Road
Central
Phears Ln
West Bengal State Seed Corporation Limited
Bhimsaria Agencies Pvt. Ltd
Canning St
Bittu Stores
Dr Lalit Banerjee Sarani
Sheetalnathji Temple
Bharati Book Stall
Radha Krishna Mandir
Sarvodaya Khadi Bhawan
St. Stephen's School
Carey Baptist Church
Central Palace
Giribabu Ln
Reliance Digital Express Mini
Gyro Kraft
Samsung Service Center
Vik ' N ' Gay
Medico
Gobinda Sen Ln
Ganguram
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Udyogi Plastics Pvt. Ltd
Madhu Jayanti International Limited
Yes Bank ATM - Central Station
Chittaranjan Ave
Bow St
R.RANA & CO
State Bank Of India
Premchand Boral St
Sree Gopal Mullick Ln
BB Ganguly Street
Central Plaza
RITES Limited
bowbazar crossing
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Calcutta Medical College Main Boys' Hostel
Allahabad Bank
Axis Bank
IndusInd Bank ATM
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Goenka College of Commerce and...
AVJ INFOTECH Pvt. Ltd
Kenderdine Ln
Omer Mansion
Buddhist Temple
Digicomp Complete Solutions Ltd
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Diamond Tours & Travels
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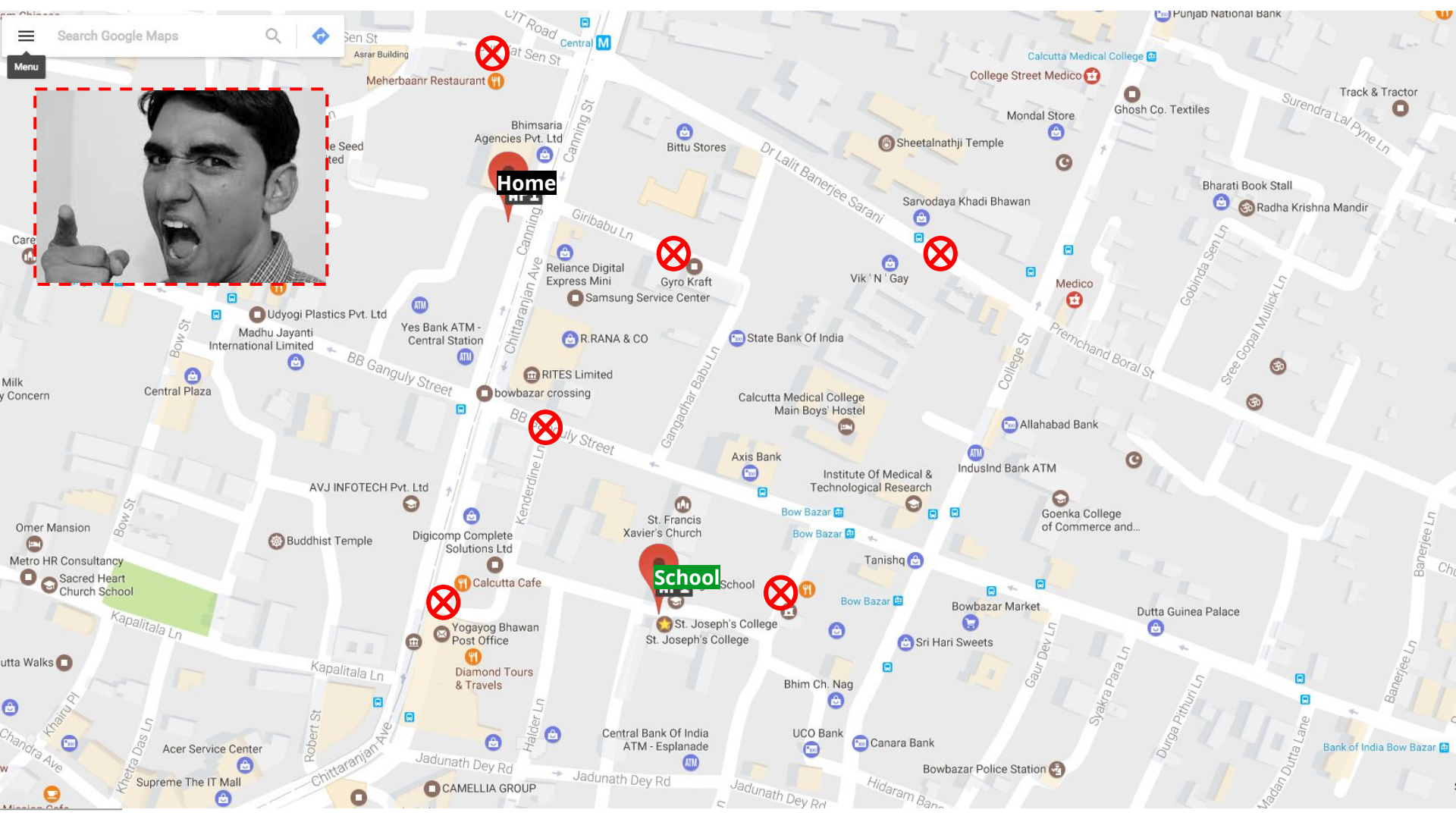
Madan Dutta Lane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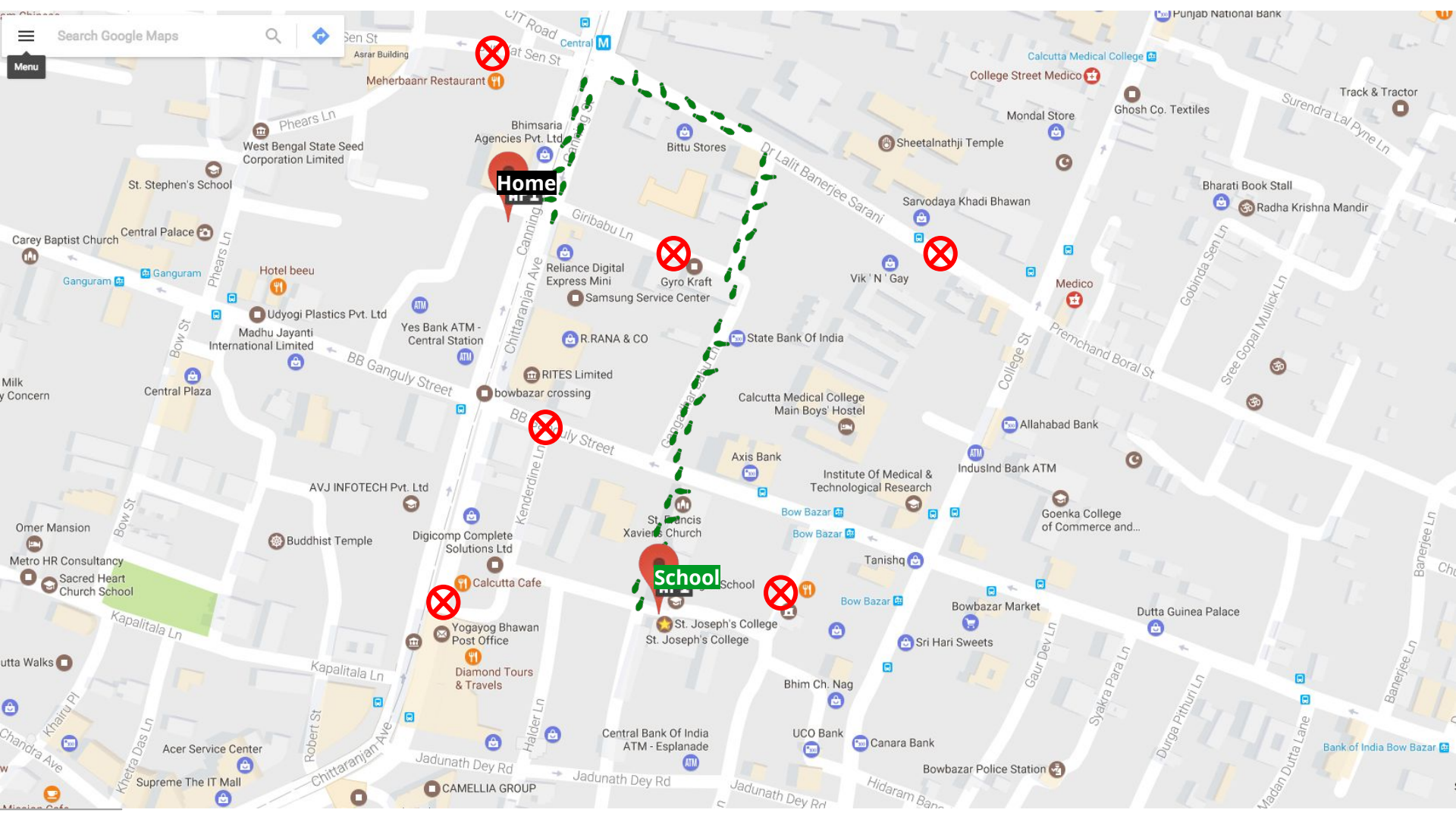
Hidaram Banerjee Ln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St. Joseph's College
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Asrar Building
Phears Ln
Central
CIT Road

If only !
Machine Learning

Home The New York Times Magazine Share 448

The Great A.I. Awakening

How Google used artificial intelligence to transform Google Translate, one of its more popular services — and how machine learning is poised to reinvent computing itself.

BY GIDEON LEWIS-KRAUS DEC. 14, 2016

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The Great A.I. Awakening
used artificial intelligence to transform Google
of its more popular services — and how
is poised to reinvent computing itself.
DEON
DEC. 14, 2016
Allo
Google

What about Ads?

80% of time spent is dealing with manual, repetitive and less strategic tasks

Monday	Tuesday	Wednesday	Thursday	Friday

bcg.perspectives
by THE BOSTON CONSULTING GROUP

We gave you data for your optimization....

Last Click

Google Confidential and Proprietary

New data for your optimization.....

Last Click

Impressions

Assist Clicks

Cross Device

Audiences

Google Confidential and Proprietary

And more data if that helps ....

Website Conversion

Call Centre Sales

Offline Sales

Download

Lifetime Value

etc.....

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Tools can now find the
best *picture*,
best *headline*,
best *price*, etc.

Google Confidential and Proprietary

0:01 / 2:59

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It's pure Creative & Strategic Work.....
Machines had nothing to do

People and data make machine learning work

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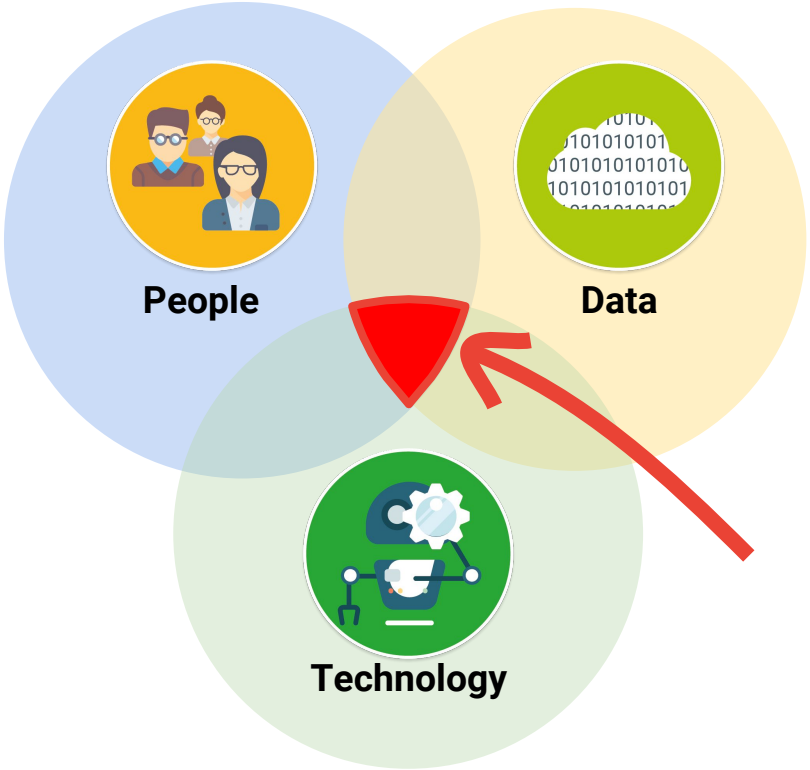
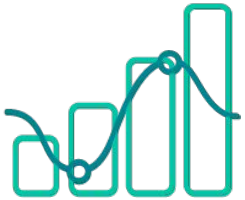
Creative & Strategic





Effectiveness & Efficiency

Proprietary + Confidential

Our Hope

Monday	Tuesday	Wednesday	Thursday	Friday

We leverage Google's existing technology stack

These world class products...

Google AdWords

YouTube

Google Play

Google Maps

Google ASSISTANT

Google Shopping

All use Google's advanced machine learning

TensorFlow™

DeepMind

Google Brain

Google Inside AdWords

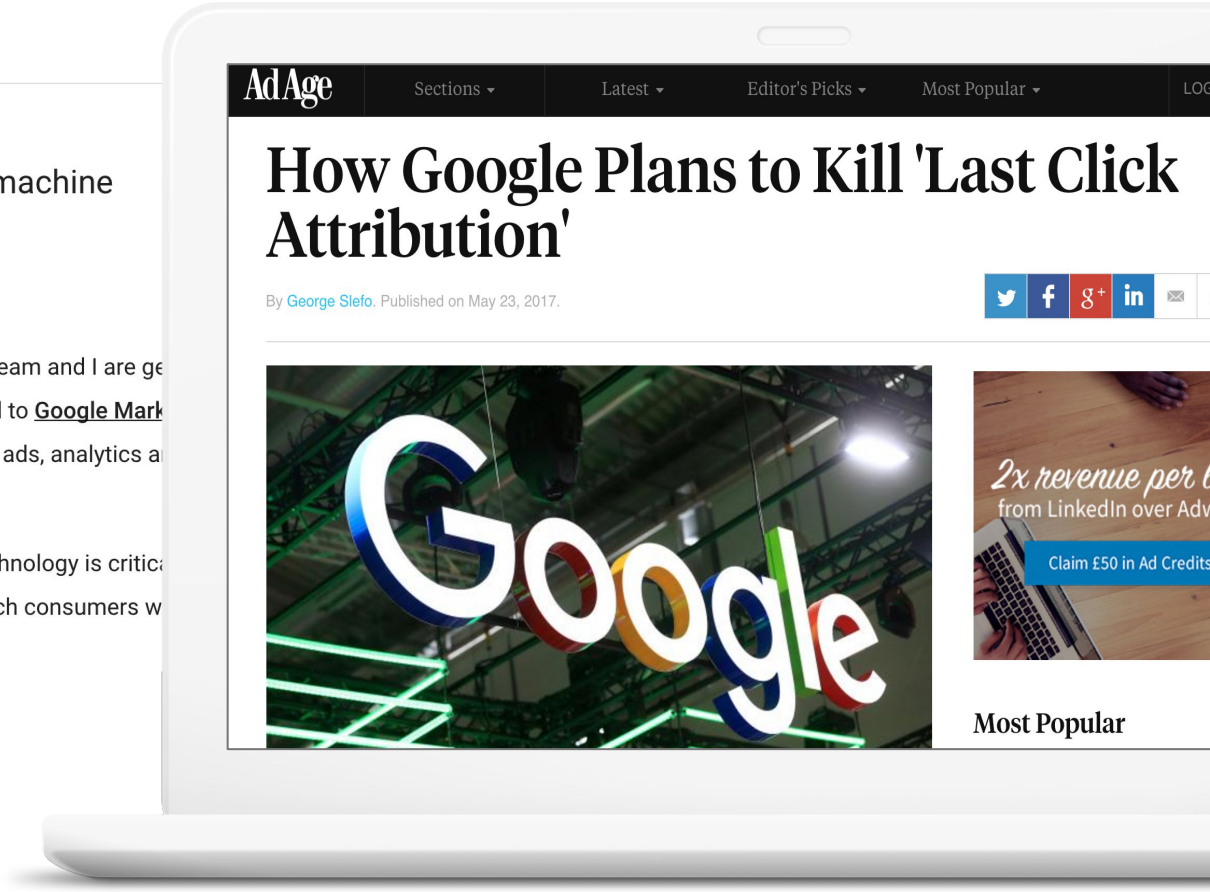
Google's official blog for news, tips and information on AdWords

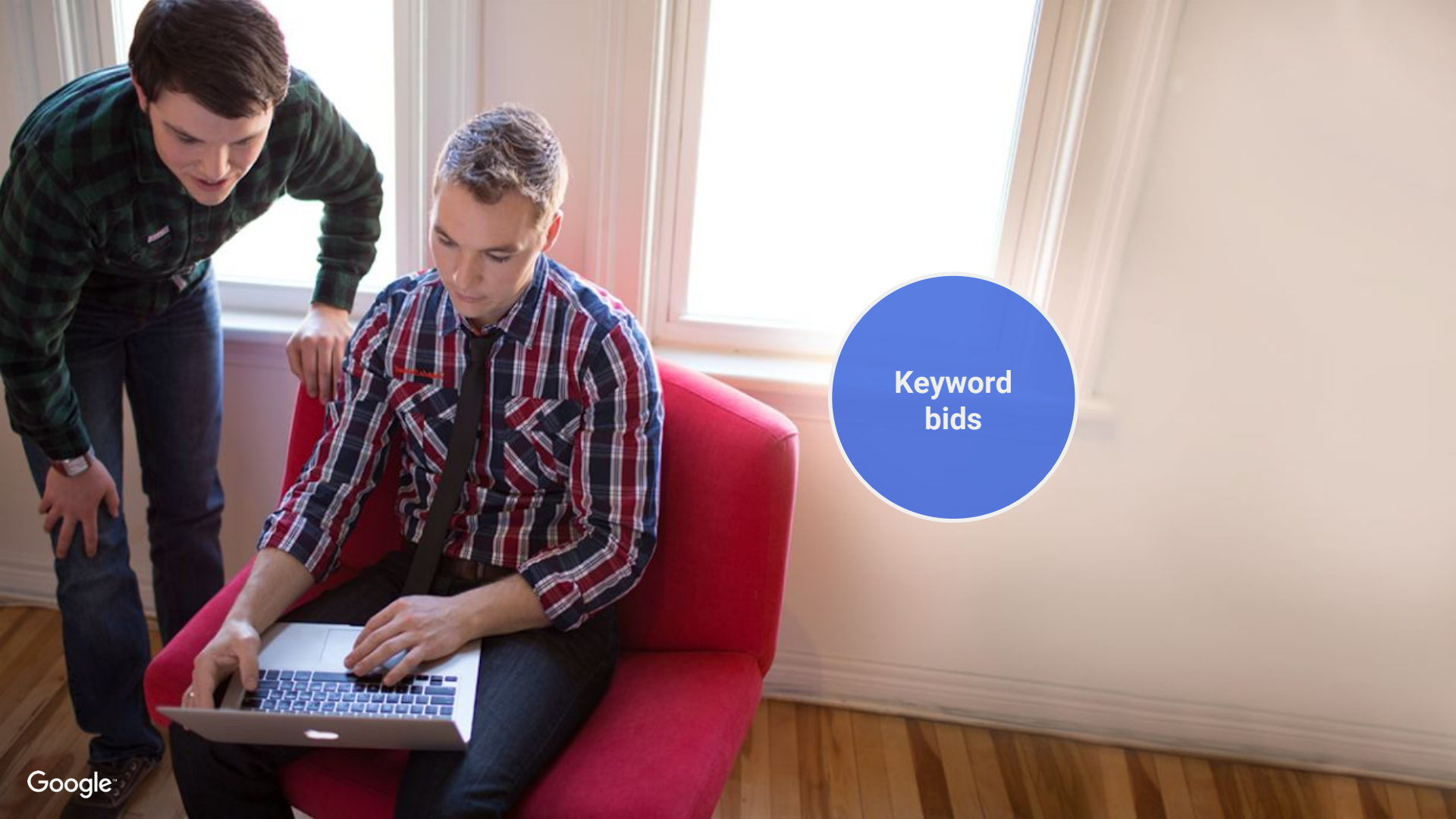
Powering ads and analytics innovations with machine learning

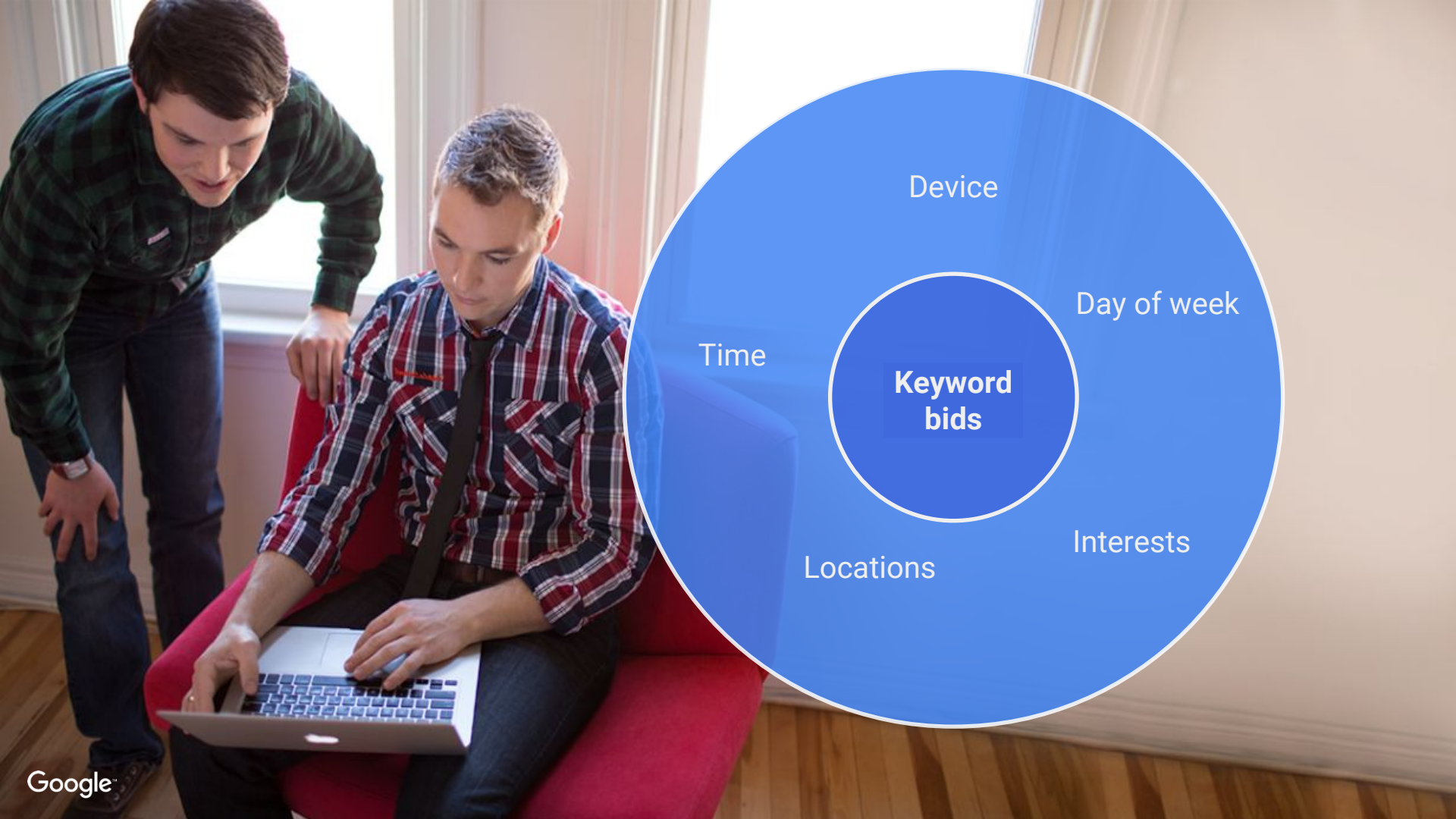
Tuesday, May 23, 2017

Good morning, San Francisco! As the city starts to wake up, my team and I are ge
up to welcome over a thousand marketers from around the world to **Google Mark
Next**, our annual event where we unveil the latest innovations for ads, analytics a
DoubleClick.

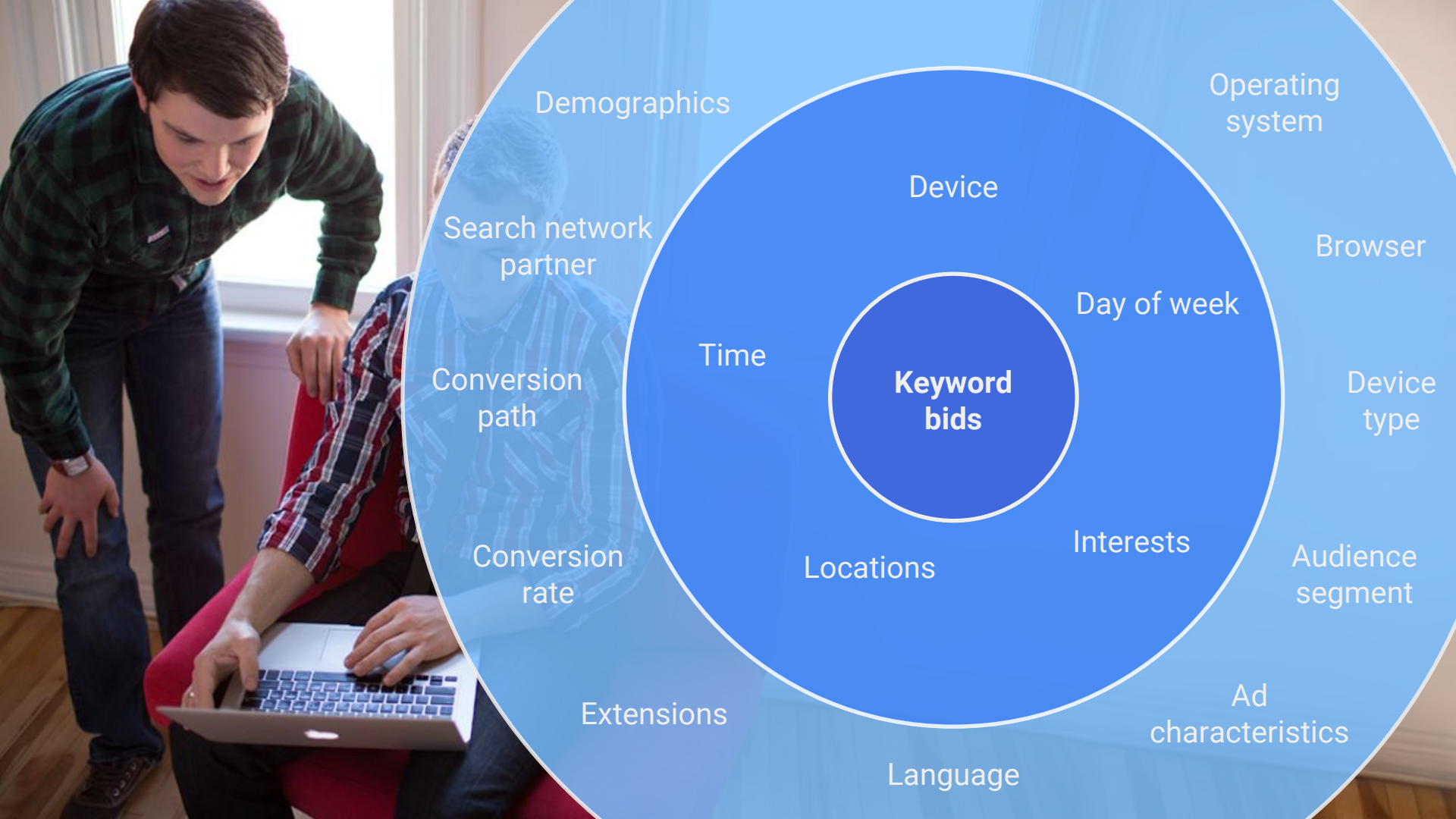
A big theme you'll hear about today is machine learning. This technology is critic
helping marketers analyze countless signals in real time and reach consumers w




Keyword bids



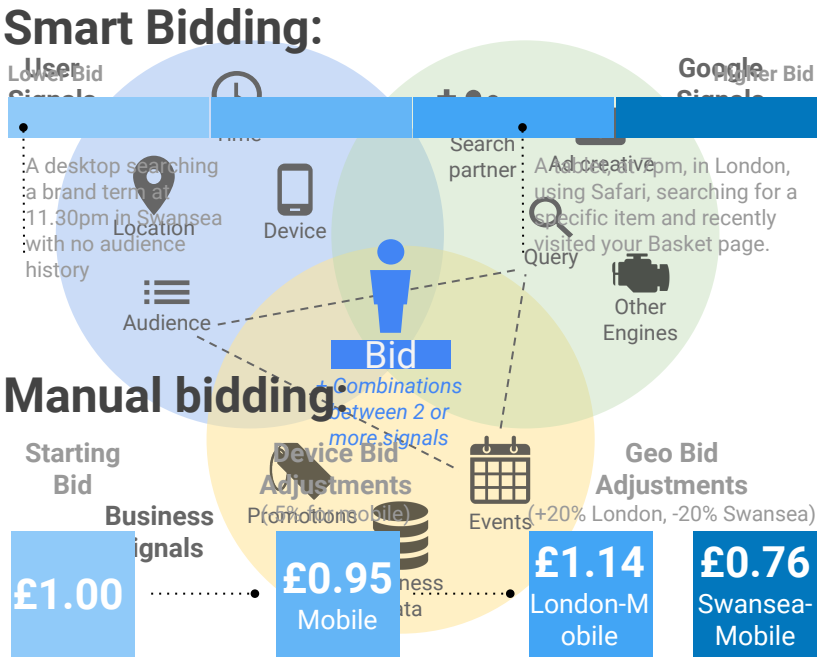
Google


Demographics
Operating system
Device
Search network partner
Browser
Day of week
Time
Conversion path
Keyword bids
Device type
Interests
Conversion rate
Locations
Audience segment
Extensions
Ad characteristics
Language

Get **Smart** about your bidding!

Google Smart Bidding technology sets bids at a frequency unmatched by any other platform.

This provides a more precise level of bid optimisation and tailors bids at an unparalleled frequency.



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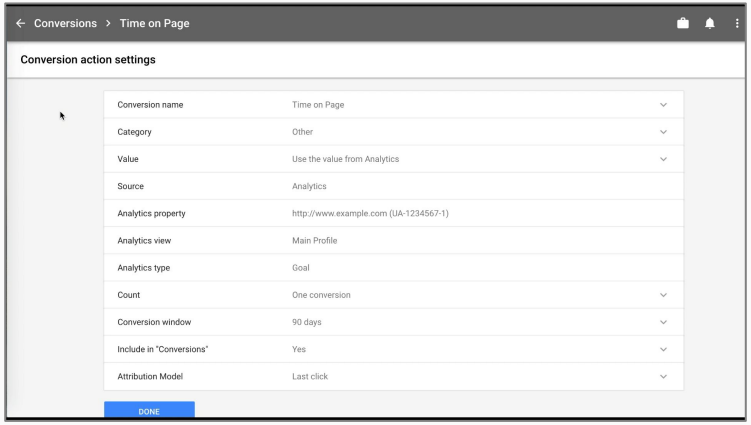
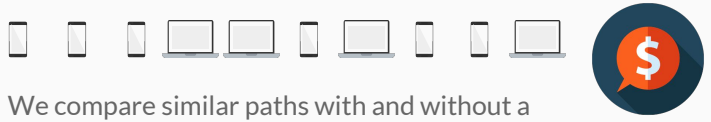
Data Driven Attribution

Our data driven model gives credit based on the actual impact of a touch point

The solution: A Data Driven Model

A data driven model uses all your paths to calculate the actual impact of every click & attributes value accordingly while using machine learning for continuous improvement. Therefore it is highly customized and dynamic.





We compare similar paths with and without a specific touchpoint to assess its impact in conversion probability

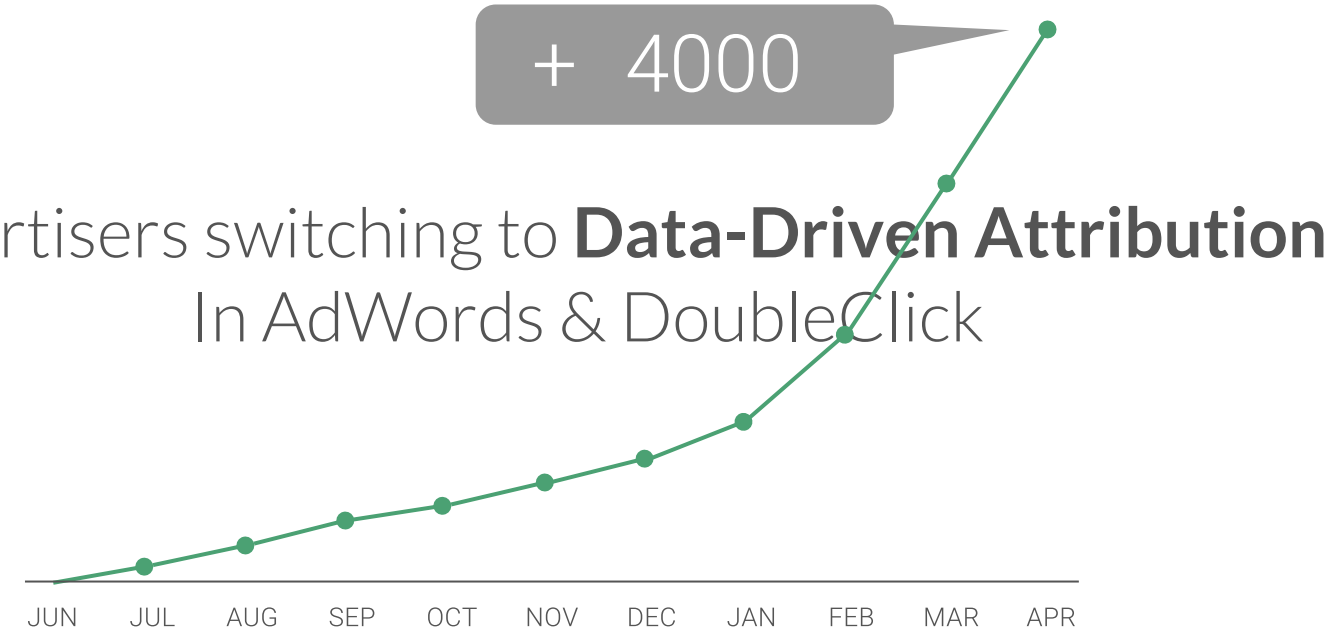
Impact on Conversion Rate: +150%

Google

Free

Enterprise

Actionable



Advertisers switching to **Data-Driven Attribution**
In AdWords & DoubleClick

Source: Google data, 2016-17.

+5% Conversions

at same cost

ЦИТРУС КЛУБ

+32% Conversions

-48% CPA

SriLankan Airlines

+49% Conversions

-60% CPA

Hangikredi

+56% Conversions

-12% CPA

herrenausstatter.de
Das Original. Seit 1997.

+88% Conversions

-12% CPA

+5% Conversions at same cost

More than 25 Cases Studies on think with Google

Medpex Case

Medpex improves search performance via Smart Bidding, Cross-Device Integration and Data Driven Attribution

Goal

Increase marketing efficiency and decrease effort of managing AdWords campaigns.

Approach

AdWords Smart bidding using target CPA in combination with Data Driven Attribution.

Results

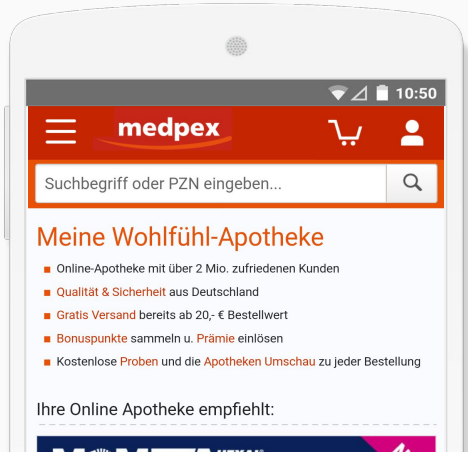
29% more conversions at **37%** higher ROAS

+95% mobile conversions

Mobile ROAS increased by **148%**

> *"An algorithm is better equipped than any manual optimization to react to dynamic changes such as prices changes of competitors or delivery bottlenecks."*

Frank Müller
Chief Marketing Officer
medpex



Google

Where are *we* heading ?

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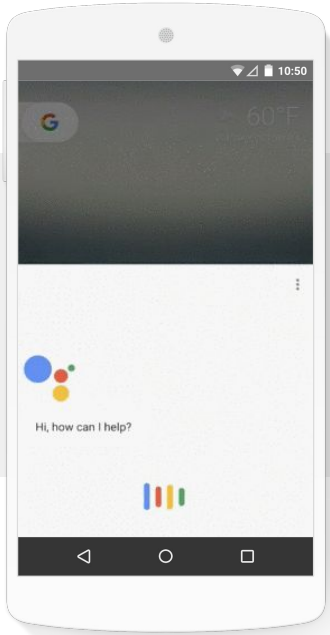

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FT ADVISER

Home Pensions Investments Mortgages Protection Regula

Mortgages November 14, 2017

Halifax and Google unite to bust property jargon

Be the first to comment

"Buying a home is usually the biggest financial commitment we make in a lifetime, and we know that mortgage and property market terms can feel difficult to grasp - with many people turning to Google for help...this felt like the perfect opportunity to join forces with Google to help people navigate the home buying process more confidently"

Tim Male, Head of Innovation and Communications at Halifax

Google

Our vision

Analytics Intelligence

Using **machine learning** to help customers **understand and act** on their data

Surface actionable insights

Democratize data

Detect + predict user behavior

Google is bringing natural language interaction to the enterprise...

*Semantic intelligence-powered voice interfaces are the **next logical step** in how we interact with technology*

Do you struggle with .....

Google AdWords

22

Conversions

10

Conversions

28

Conversions

Your CRM

21

Conversions

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Our vision

Google AdWords

21
Conversions

Google Analytics 360 Suite

21
Conversions

DoubleClick Search

21
Conversions

Your CRM

21
Conversions

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Designed for action

Data in
Leveraging existing tags

Analyze & Attribute
Data Driven
Cross Device
Cross Channel
Impression based

Data out
Seamless auto--bidding integration

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Thank you!

matz@google.com