

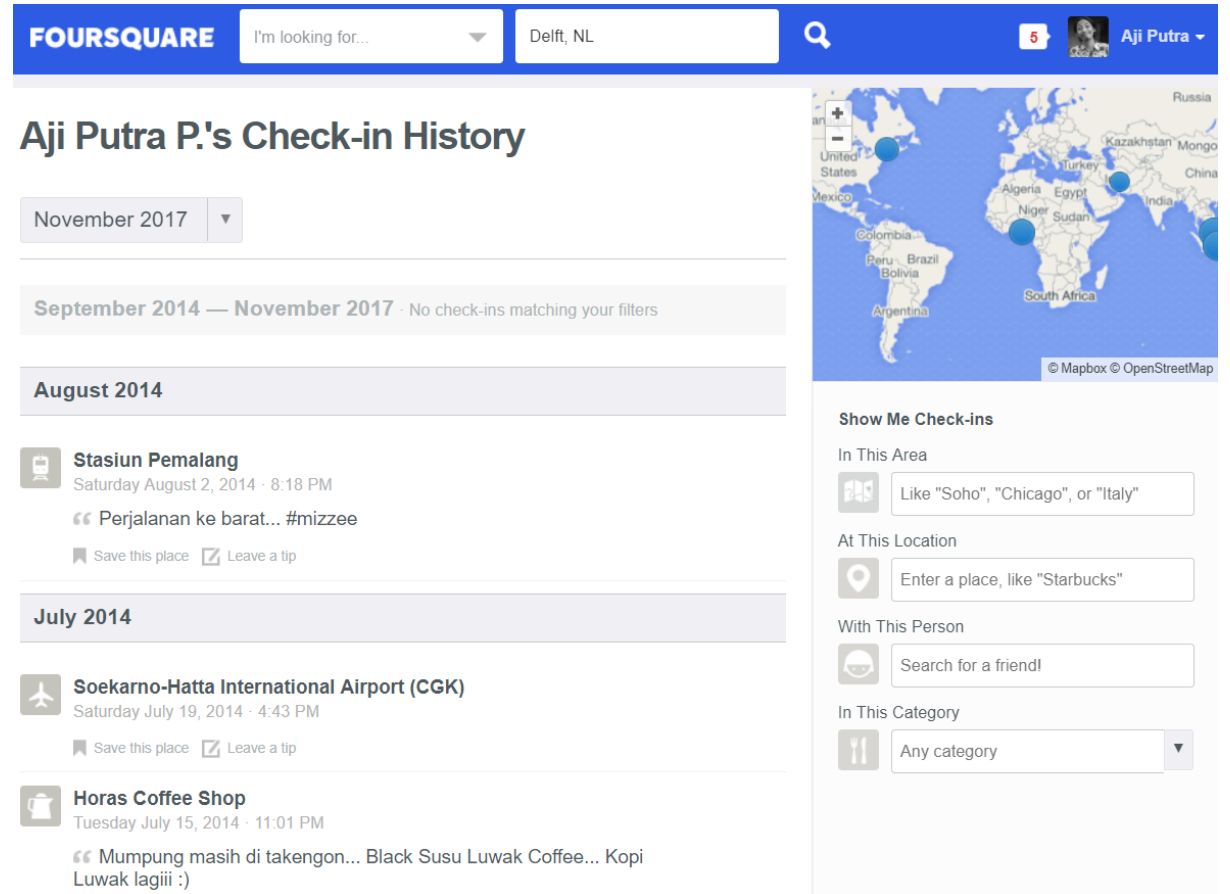
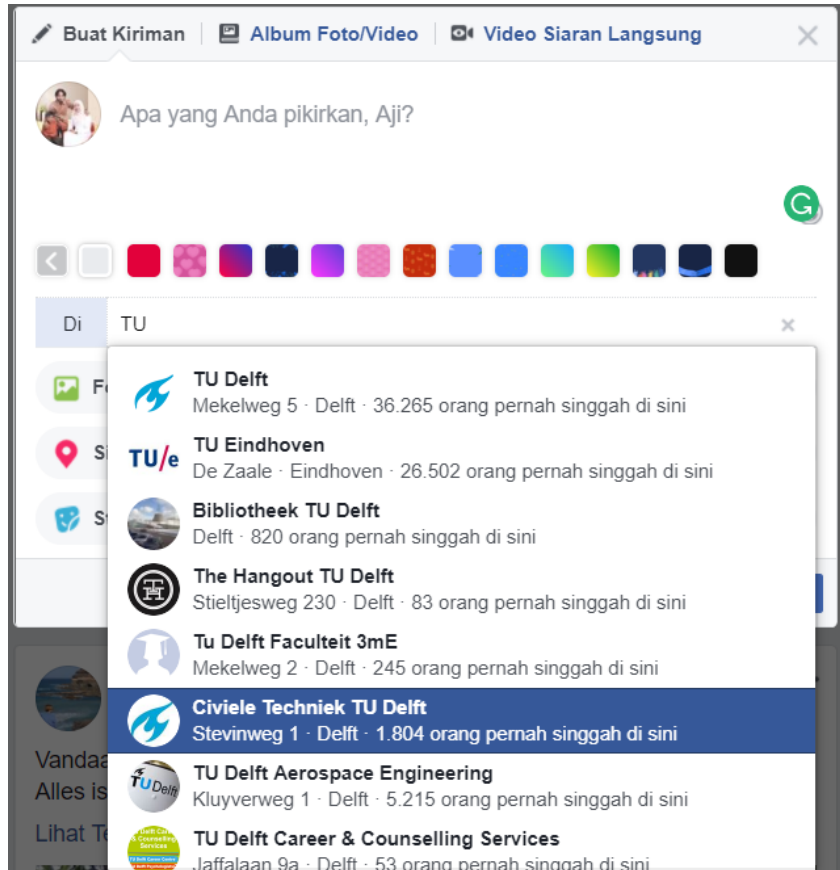
Crowd-based Place (Names) Information from (Big) Geosocial Data

Aji Putra Perdana
Faculty of ITC, University of Twente.

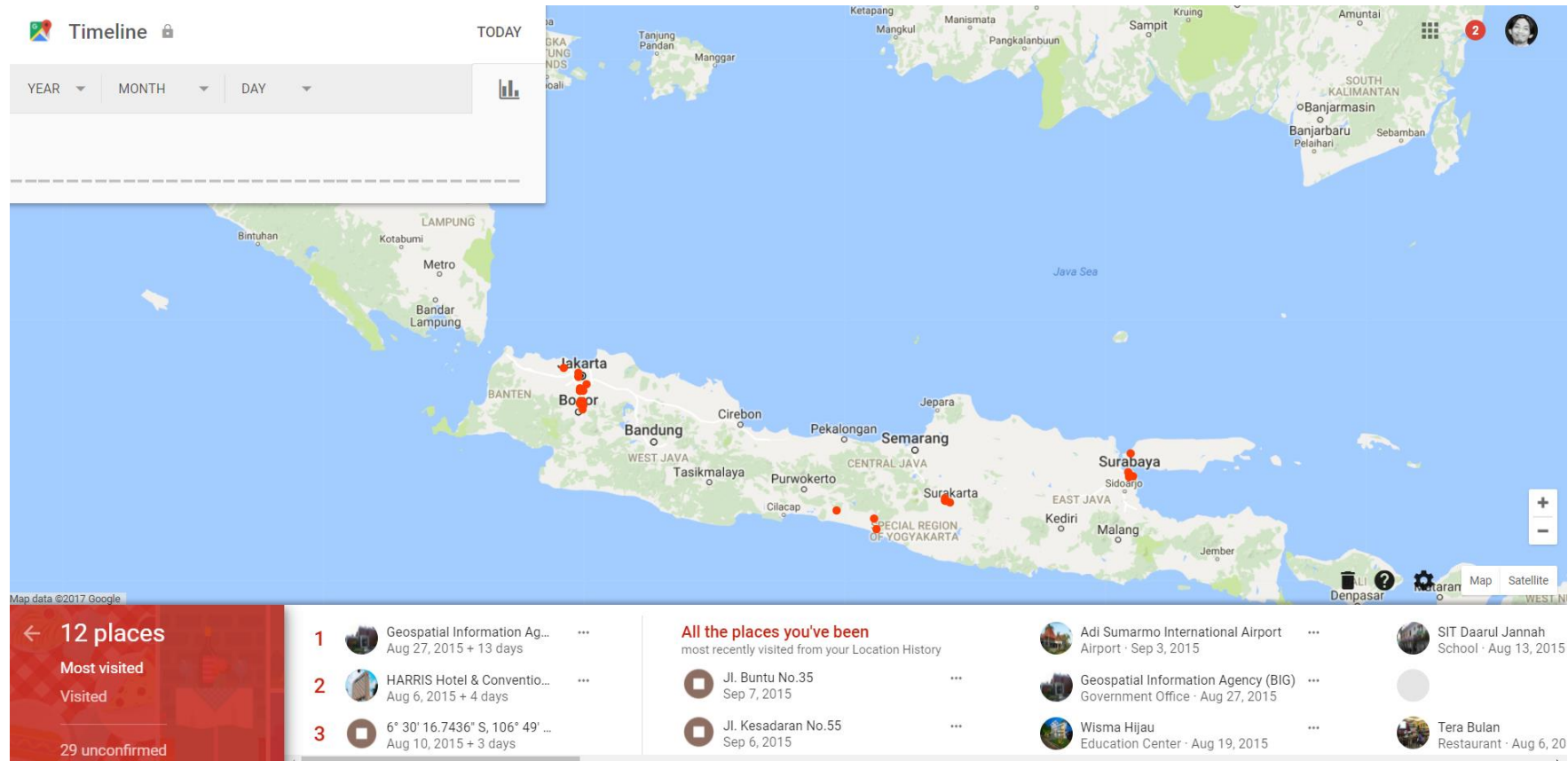
What's in Place Names?

- Names of the places associated with geographic phenomena, significant person, and many other things.
- Place is close to human cognitive factors (knowledge, memories, beliefs).
- People named places collectively or individually using their language and local understanding.
- Place names are socially constructed by people's lives, identities and communication.
- Nowadays, people become producer and consumer of crowd-based place names information in social media.

Check-in



Check-in







 Aji Beranda 20+





Jelajahi tempat-tempat yang menarik di setiap kota

Amerika Serikat



Lulu's Bakery & Cafe
4.1 ★★★★★ (4868)
San Antonio, Texas



Wendy's
Dublin, Ohio



Applebee's Grill & Bar
4 ★★★★★ (4533)
Kota New York



Veilig | https://www.facebook.com/pg/CivieleTechniekTUDelft/about/?ref=page_internal

Civiele Techniek TU Delft

Suka Ikuti Bagikan ...

Daftar Pesan

Tentang [Sarankan Penyuntingan](#)

TEMUKAN KAMI

Stevinweg 1
Delft [Dapatkan Petunjuk Arah](#)

@CivieleTechniekTUDelft [Kirim Pesan](#)

Telepon 015 278 9802

JAM

Buka 7:00 - 23:00 ▼

INFO BISNIS

Didirikan tanggal 2010

INFORMASI KONTAK TAMBAHAN

voorlichting-citg@tudelft.nl

<http://www.citg.tudelft.nl>

INFO SELENGKAPNYA

CERITA

Alles op het gebied van water, (ondergronds) bouwen en transport, civiele techniek is alles om je heen!

TU Delft site: <http://ct.bsc.tudelft.nl/>
Het Gezelschap Praktische Studie: <http://www.ps.tudelft.nl/>





Google My Business

SIGN IN

START NOW

Home

How it Works

Resources & FAQ

Overview

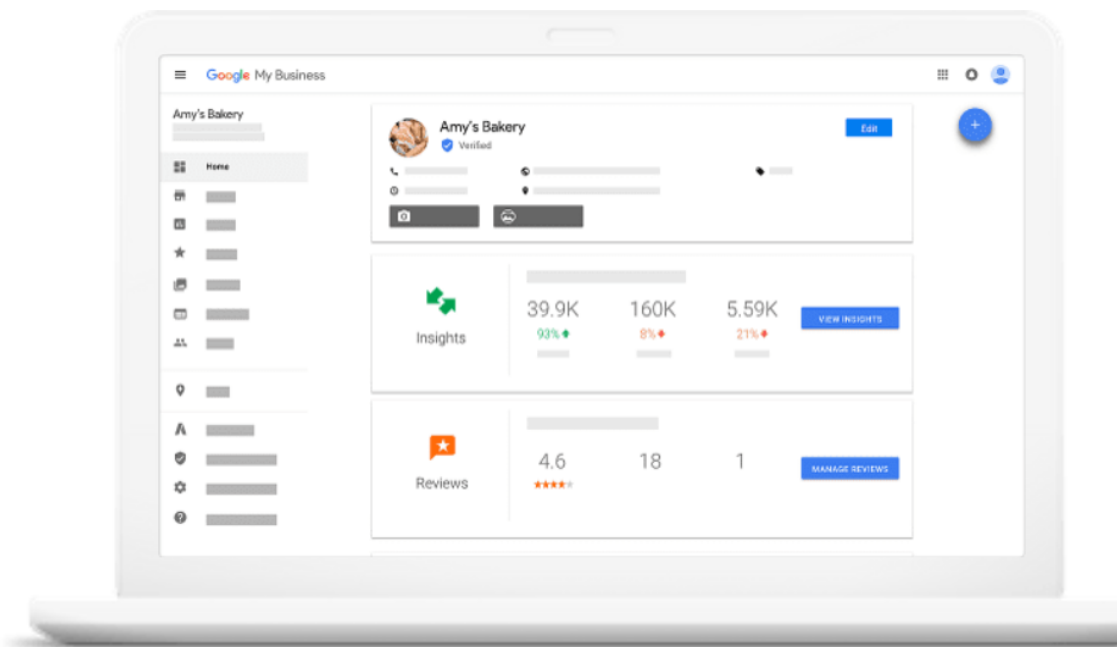
Website

Posts

Insights

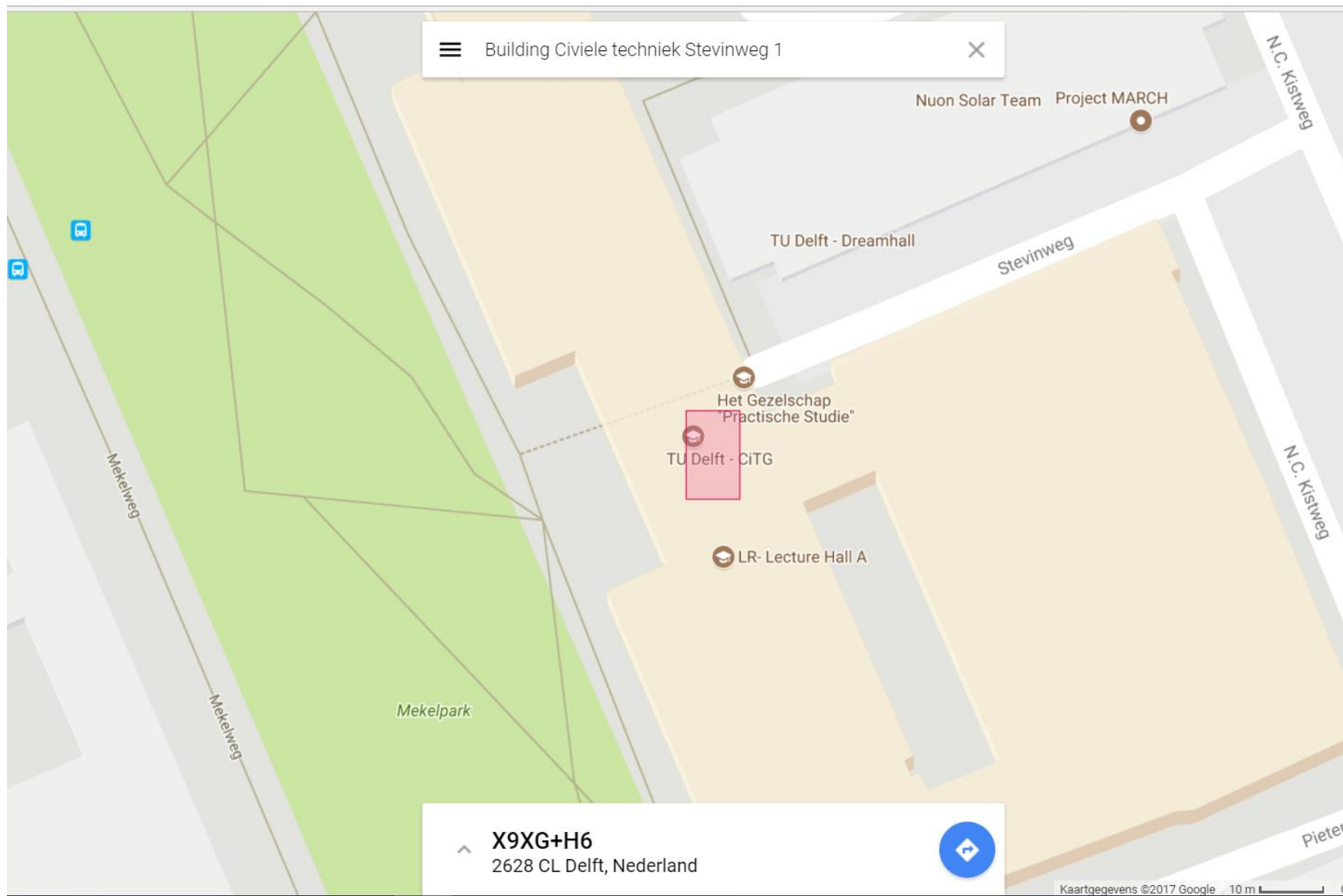
Manage how customers view your business.

Take charge of what people see when they search for your business. Google My Business gives you the tools to update your listing, build a website, and engage with your customers from your phone, tablet or computer. Free.





<https://plus.codes/9F36X9XG+H6>





← → ↻ Veilig | <https://map.what3words.com/victory.caramel.croak>

WHAT3WORDS Over Esri Download App Developer Contact Log In Nederlands ▾

Kaart Satelliet Esri Map Esri Satellite OpenStreetMap Mapbox Yandex

Lock Pin

Building Civiele techniek Stevinweg 1

Mekelpark

Technische Universiteit Delft (TU Delft)

Google

Kaartgegevens ©2017 Google Gebruiksvoorwaarden Een kaartfout rapporteren

victory.caramel.croak

Standardization of Place Names

United Nations Group
of Experts on
Geographical Names
(UNGEGN)

(<http://unstats.un.org/unsd/geoinfo/UNGEGN/>)

UNGEGN
Sessions

UN Conferences on
the Standardization of
Geographical Names

UNGEGN
Asia South-East Division

(<http://asedivision-ungegn.org/>)

National Names
Authorities

Discussion forum (the 10th UNCSGN); three new tasks/issues:

Forum 1 - volunteered geographic information (VGI)/crowd-sourcing

Forum 2 - definitions for gazetteers and data types

Forum 3 - general feature types/categories

Working Group on
Toponymic Data Files
and Gazetteers

(<https://wiki.gdi-de.org/display/wgtdfg/Working+Group+on+Toponymic+Data+Files+and+Gazetteers+of+UNGEGN>)

F1.2 Reliability

Created by Pier-Giorgio Zaccheddu, last modified on Aug 08, 2014

Within this sub-site the reliability issues of using VGI and crowd-sourced data in authoritative products and services shall be discussed.

The following questions are to be discussed:

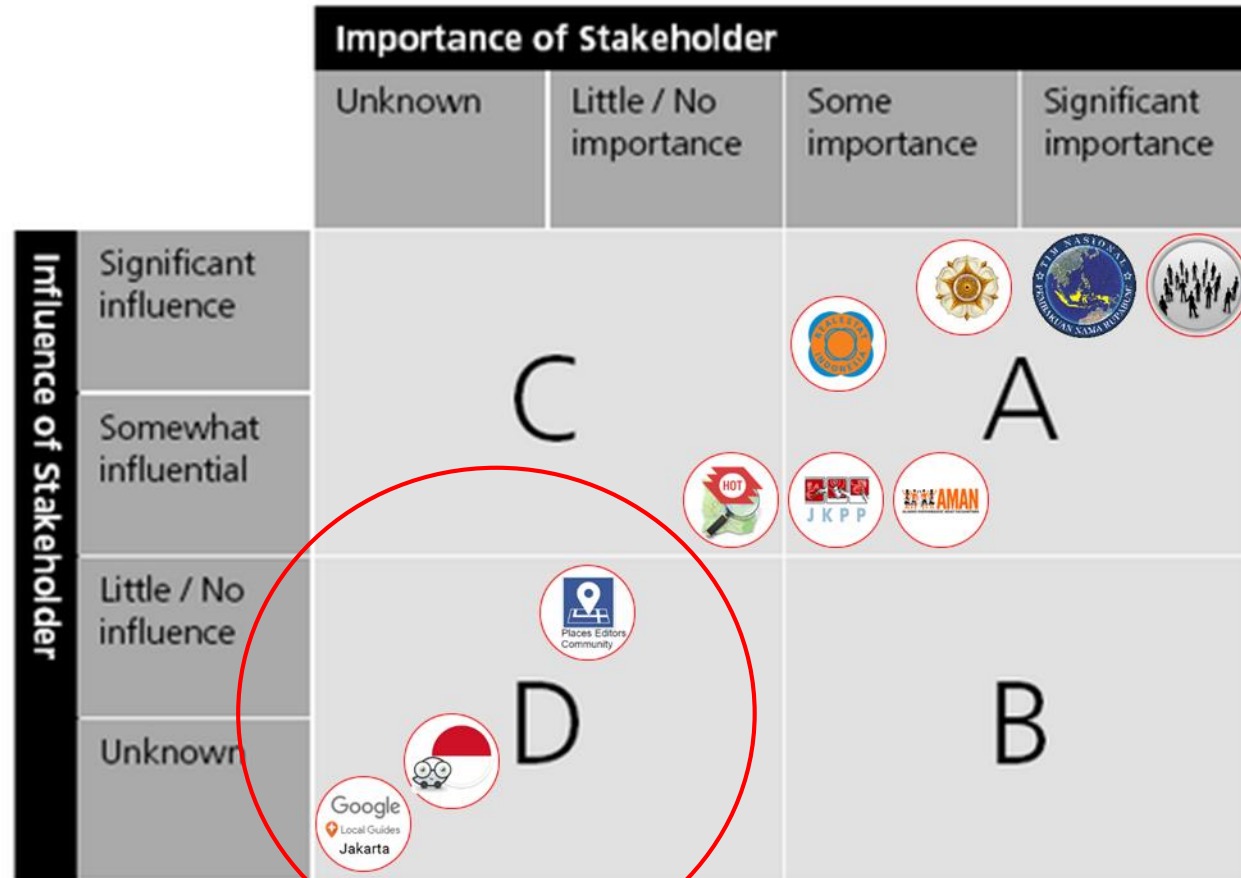
F1.2-Q1: Is the information received considered to be reliable and what are the main methods of quality control?

F1.2-Q2: What types of problems does this VGI data pose to your organisation?

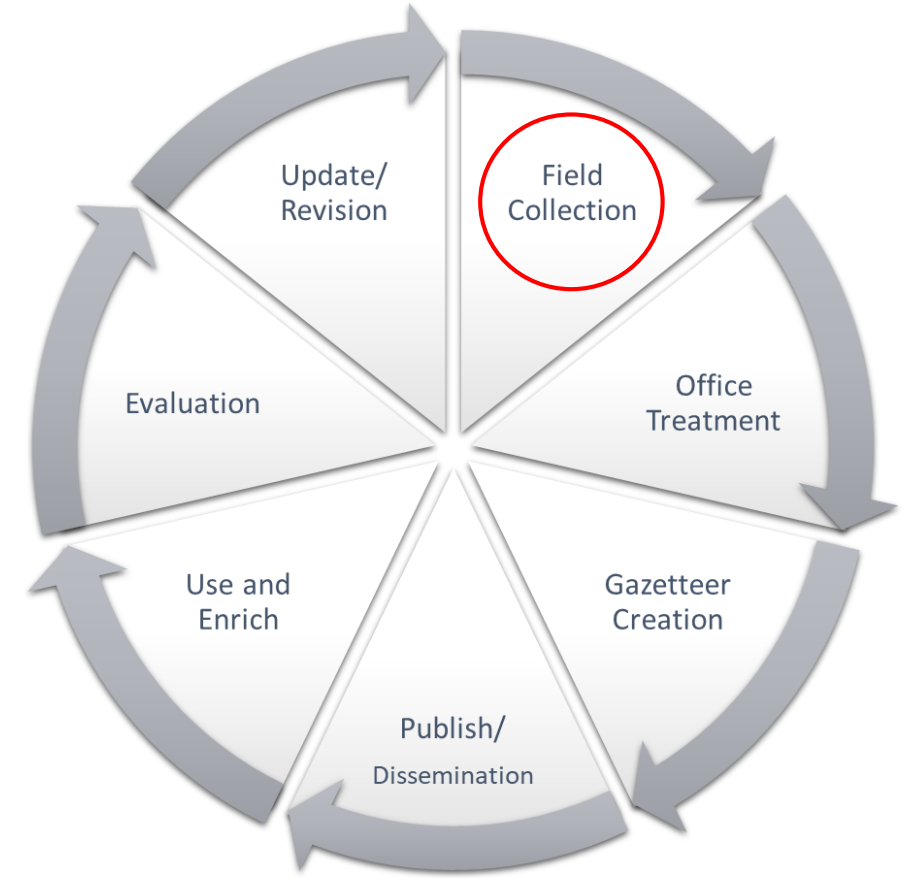
F1.2-Q3: Have you developed any rules for using it?

<https://wiki.gdi-de.org/display/wgtdfg/F1.2+Reliability>

Standardization of Place Names



Source: Analysis Stakeholder Matrix, 2017

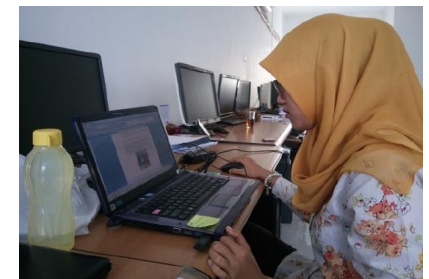


Toponym Data Collection by National Names Authority

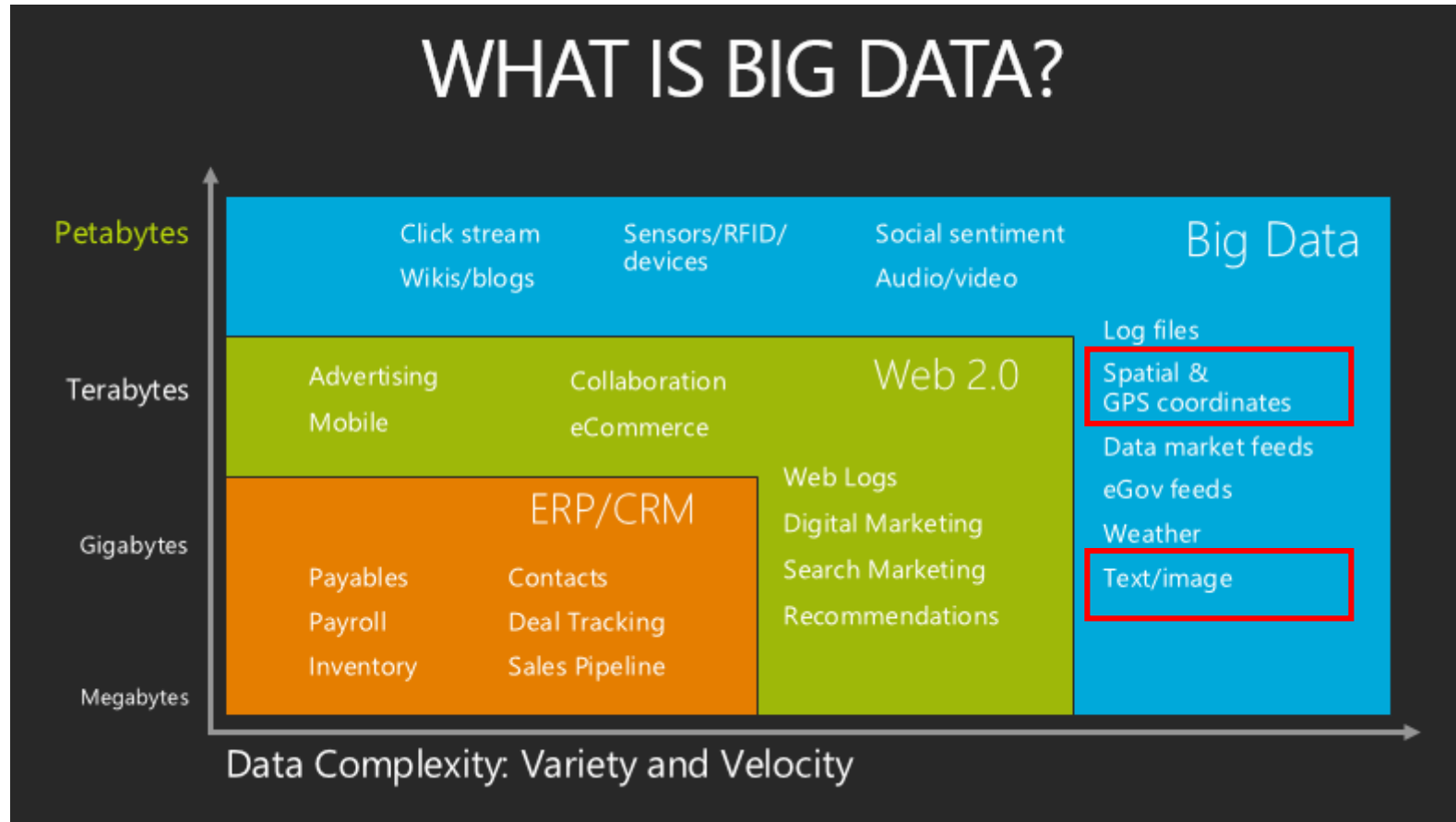
Collecting place names from the ground, place names collected by interviewing local inhabitants in the entire country, part of topographic mapping projects



(big) Geosocial Data?

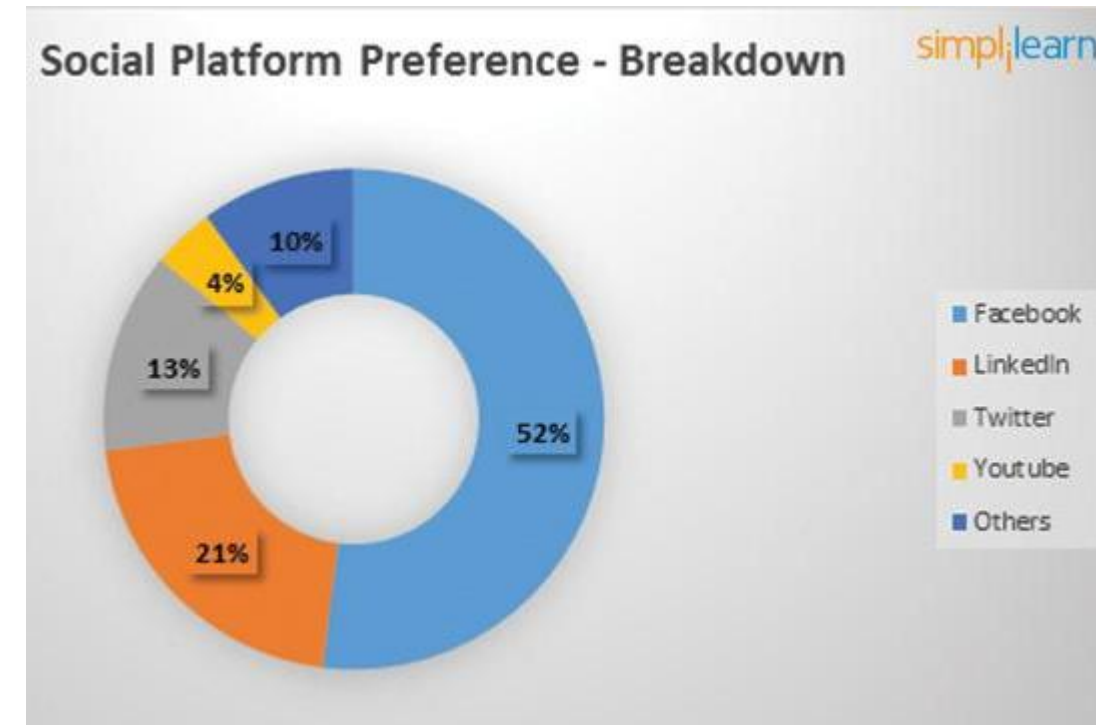
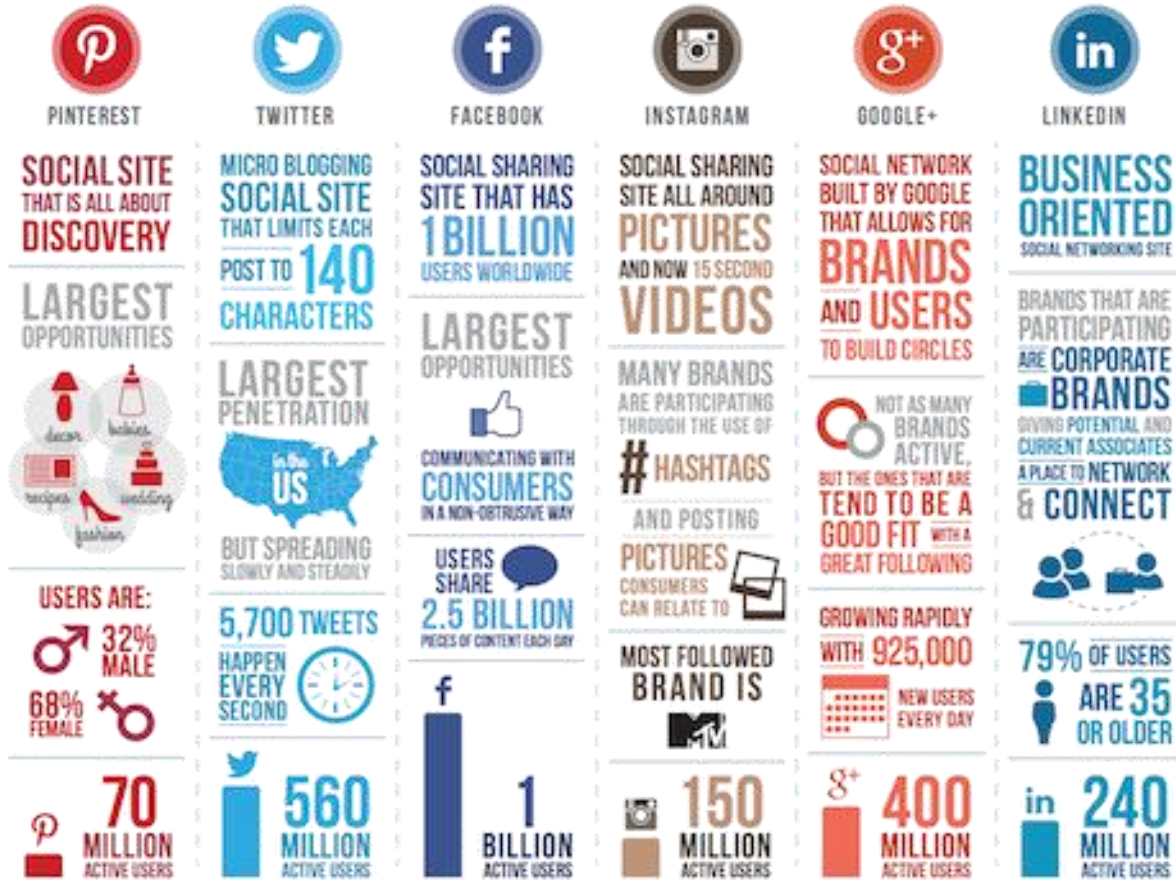


(big) Geosocial Data



https://blogs.msdn.microsoft.com/data__knowledge__intelligence/2013/02/18/big-data-big-deal/

(big) Geosocial Data



<https://www.simplilearn.com/how-facebook-is-using-big-data-article>

<http://www.incite-group.com/data-and-insights/social-mining-part-1-how-big-data-transforming-customer-insights>

Place (Names) Information from (big) Geosocial Data

The 10 (+1) Vs of Big Data

- #1: Volume
- #2: Velocity
- #3: Variety
- #4: Variability
- #5: Veracity
- #6: Validity
- #7: Vulnerability
- #8: Volatility
- #9: Visualization
- #10: Value
- #11: Vague?

Modified from George Firican, 2017

Illustration: Hans Møller, mollers.dk

<https://linkiya.wordpress.com/2015/07/13/the-six-blind-men-and-the-elephant-differing-perspectives-on-grades/>

<https://tdwi.org/articles/2017/02/08/10-vs-of-big-data.aspx>

Place (Names) Information from (big) Geosocial Data

- Flickr
 - Gao, S., Li, L., Li, W., Janowicz, K., & Zhang, Y. (2017). [Constructing gazetteers from volunteered big geo-data based on Hadoop](#). Computers, Environment and Urban Systems, 61, 172-186.
- Twitter, OpenStreetMap (OSM) Data, Geonames, DBPedia
 - de Oliveira, M. G., Campelo, C. E., de Souza Baptista, C., & Bertolotto, M. (2015, April). Leveraging VGI for [Gazetteer Enrichment](#): A Case Study for Geoparsing Twitter Messages. In W2GIS (pp. 20-36).
 - Al-Olimat, H. S., Thirunarayan, K., Shalin, V., & Sheth, A. (2017). Location Name Extraction from Targeted Text Streams using [Gazetteer-based](#) Statistical Language Models. arXiv preprint arXiv:1708.03105.
- Crowd-sourced OSM, Wikimapia, Geonames, Machine Learning (SVM)
 - Gelernter, J., Ganesh, G., Krishnakumar, H., & Zhang, W. (2013, November). [Automatic gazetteer enrichment](#) with user-geocoded data. In Proceedings of the Second ACM SIGSPATIAL International Workshop on Crowdsourced and Volunteered Geographic Information (pp. 87-94). ACM.

Place (Names) Information from (big) Geosocial Data

Predicting the quality of new contributors to the Facebook crowdsourcing system

Julian M. Eisenschlos
Facebook
Menlo Park, CA 94025
julianeisen@fb.com

Abstract

We are interested in improving the quality and coverage of a knowledge graph through crowdsourcing features built into a social networking service. In this setting, most participants are casual users, making only a few contributions, and do so incidentally in the course of using the service. Techniques that make assumptions about the matching of users to questions, or the number of answers per user or per question do not work well under such circumstances. We present an approach to model user trust when prior history is lacking, so that we can incorporate more new users' contributions into crowdsourced decisions, and provide quicker feedback to new participants. Specifically, we present a logistic regression classifier for first-time contributions, and study the effect of prior knowledge about user demographics on this classifier using Facebook crowdsourcing datasets.

SUSTAINABLE INCENTIVE MECHANISMS FOR MOBILE CROWDSENSING

Crowdsourced Road Navigation: Concept, Design, and Implementation

Xiaoyi Fan, Jiangchuan Liu, Zhi Wang, Yong Jiang, and Xue Liu

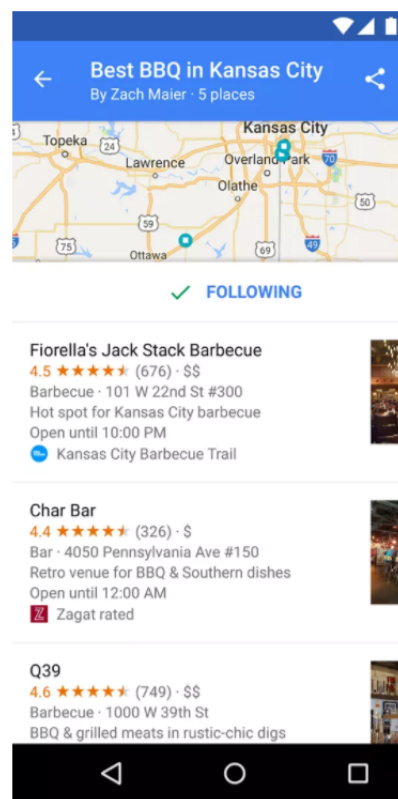
A key challenge in crowdsourcing systems is to offer enough incentive for a user to contribute her/his experiences. Google Local Guide⁴ encourages users to help others with their local experience (e.g., writing reviews or rating restaurants) with benefits in return. It is worth noting that crowdsourced systems identify the best route toward a destination by mining the massive trajectory information from the crowd, and therefore

² <https://www.waze.com/>

³ <https://www.openstreetmap.org/>

⁴ <https://www.google.com/local/guides/>

favorite spots, or send them yours via text, email, messaging apps, or social media. All of which raises the question: is Google



tps://developers.google.com

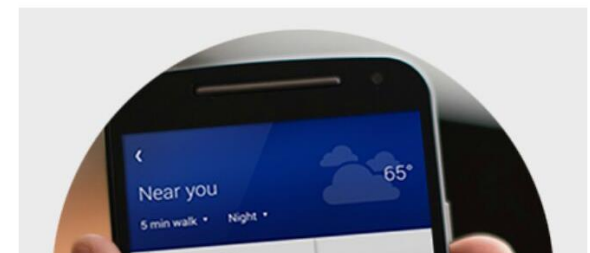
Google Pl...

SIGN IN

Make your app stand out with detailed information about 100 million places across a wide range of categories, from the same database as Google Maps.

Android iOS JS HTTP

API Features



GDPR READY?
How US email marketers can avoid hefty new EU fines



BUILD VS. BU
The great mart debate

Martech: Analytics & Data

Stay marketing-savvy and tech-savvy. Get the latest in martech by subscribing to MarTech Today.

Enter your email here.

SUBSCRIBE

Facebook's Places Graph makes 140 million locations available to developers for free

The available content includes business address, lat-long, hours, likes, check-ins, ratings, photos and more.

Greg Sterling on April 18, 2017 at 4:51 pm



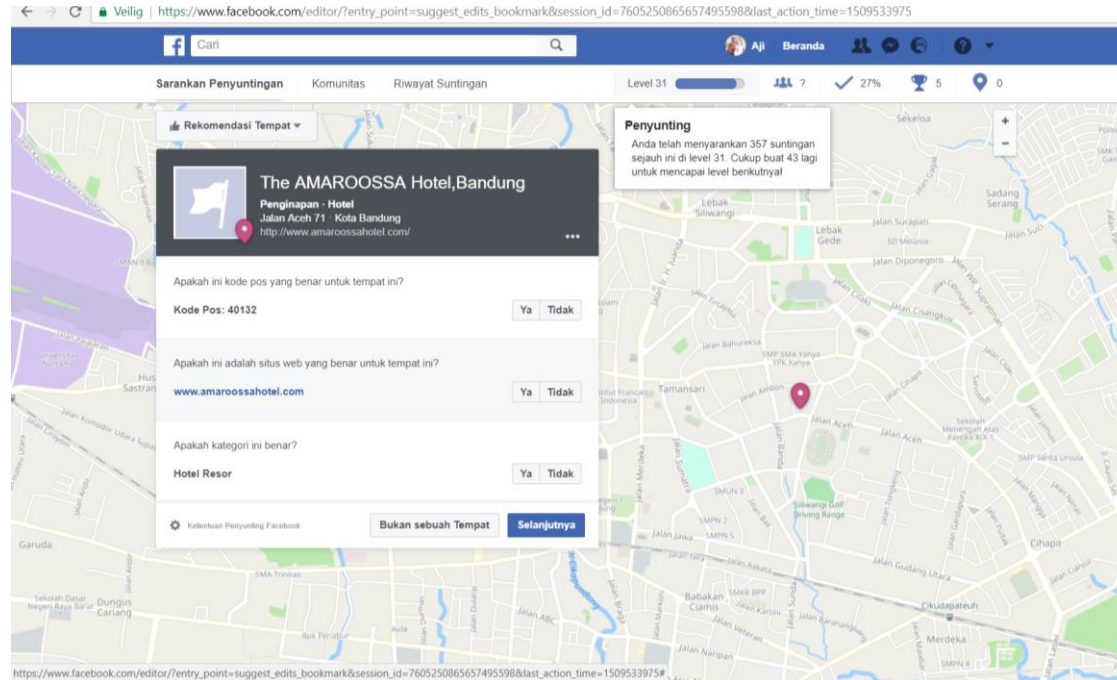
<https://www.theverge.com/2017/2/13/14581028/google-maps-location-list-share-social-network>

Findings

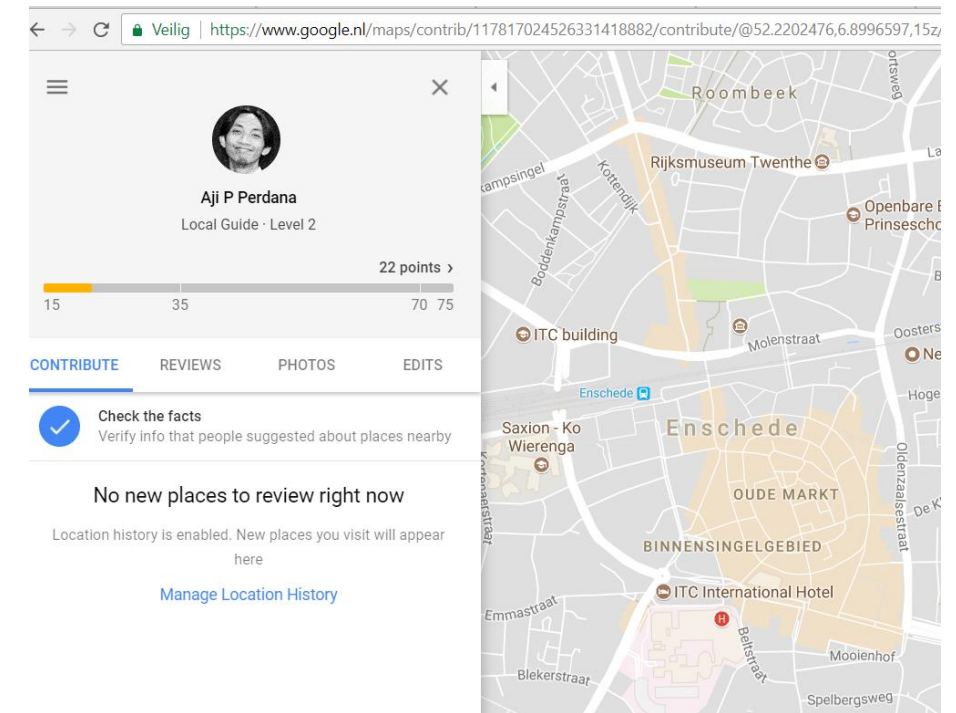
- Crowdsourcing mechanism: gamification and reward system
- Place Information or description
- Contributor and Community
- Richness and Vandalism
- “un-official, but useful?” place names - New Paradigm for Geographical Names Authority

Gamification and reward system

Facebook Place Editors



Google Local Guide



Place Information or description

Facebook Place Editors

INFORMASI UMUM

Nama The AMAROOSSA Hotel,Bandung

Kategori Penginapan · Hotel

Label Halaman [+ Sarankan label halaman](#)

Telepon +62 22 4222221

Situs Web www.amaroossahotel.com

Email [+ Sarankan alamat email](#)

LOKASI

Alamat Jalan Aceh 71
Kota Bandung 40115



JAM OPERASI

Jadwalkan Selalu Buka

LAPORKAN DUPLIKAT DARI TEMPAT INI

URL [+ Tambahkan URL Duplikat](#)

Google Local Guide

Suggest an edit



Place is permanently closed or has never existed

NO

Click information below to correct it

Name [Amaroossa Hotel Bandung](#)

Address [Jl. Aceh No. 71 A, Citarum, Bandung Wetan](#)
[Citarum Bandung Wetan](#)
[Kota Bandung, Jawa Barat 40115, Indonesia](#)

Category [Hotel](#)

Location ☐ Marker is placed incorrectly on the map

Phone [+62 22 4222221](#)

Website <http://www.amaroossahotelbandung.com/>

Report on a different place

Submit

Google will email you about the status of your edits. [Learn more.](#)

Crowd-based Place (Names) Information

Facebook Place Editors

Welcome and House Rules

Welcome to the Facebook Places Editors group! This group is managed by the Facebook Editor team and we thank you for joining.

We ask that you:

- ✓ Please only use this group for discussions related to Places Editing. Links to our editing guides, our wiki & other important info can be found by reading our group description. If you would like to share personal photos or socialize with fellow editors, please use the Social Community group: https://www.facebook.com/groups/PlacesEditorsCommunity/?ref=gs&fref=gs&dti=117726794982269&hc_location=group.
- ✓ Participate in a kind and collaborative way, and exercise respect and consideration while here. People who attack other members, block admins, or become disrespectful will be removed.
- ✓ Please do not post any spam. If you are reported to be abusing the group, you may be removed from the group.
- ✓ Use the group wall and tagging feature to get a hold of an admin, rather than reaching out via Private Messages.
- ✓ Avoid private messaging other members to demean, harass, or be unkind.

Google Local Guide

You're Helping Millions of People Get Around

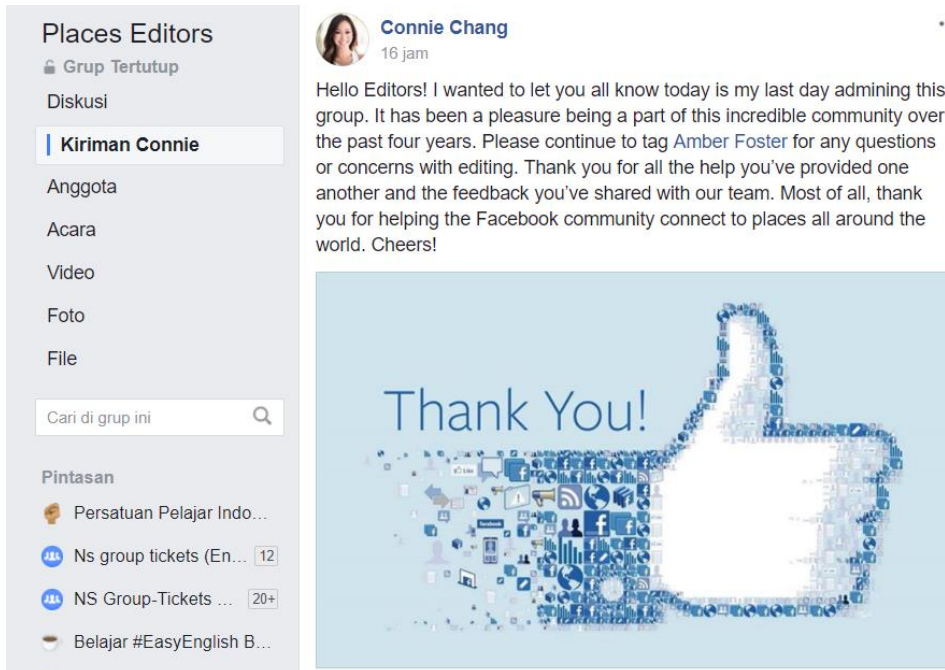
Last month, we challenged Local Guides to try answering three accessibility questions a day on Google Maps to help people with mobility issues. Today, we're excited to reveal amazing progress.

- Nearly 7 million Local Guides joined the effort
- You added 51 million accessibility answers to over 12 million places globally
- More than 200 accessibility **meet-ups** were organized around the world

Watch the video series above to see how your incredible contributions impact real people. There are still many places missing information for people with wheelchairs, walkers, and strollers. Keep sharing to support mobility for all.

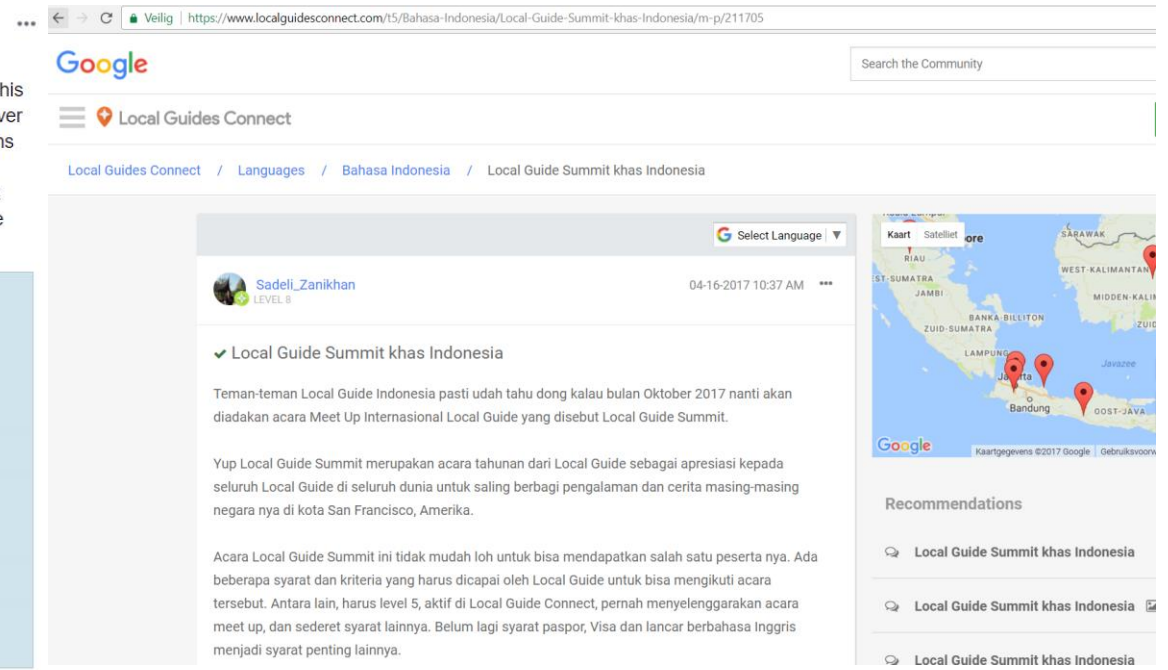
Contributor and Community

Facebook Place Editors



The image shows a screenshot of the Facebook 'Places Editors' group page. On the left, there is a sidebar with navigation options: 'Grup Tertutup', 'Diskusi', 'Kiriman Connie' (highlighted), 'Anggota', 'Acara', 'Video', 'Foto', and 'File'. Below this is a search bar and a 'Pintasan' (Shortcuts) section with links to 'Persatuan Pelajar Indo...', 'Ns group tickets (En... 12)', 'NS Group-Tickets ... 20+', and 'Belajar #EasyEnglish B...'. The main content area features a post by 'Connie Chang' from 16 hours ago. The post text reads: 'Hello Editors! I wanted to let you all know today is my last day admining this group. It has been a pleasure being a part of this incredible community over the past four years. Please continue to tag Amber Foster for any questions or concerns with editing. Thank you for all the help you've provided one another and the feedback you've shared with our team. Most of all, thank you for helping the Facebook community connect to places all around the world. Cheers!'. Below the text is a large graphic that says 'Thank You!' with a thumbs-up icon made of social media icons.

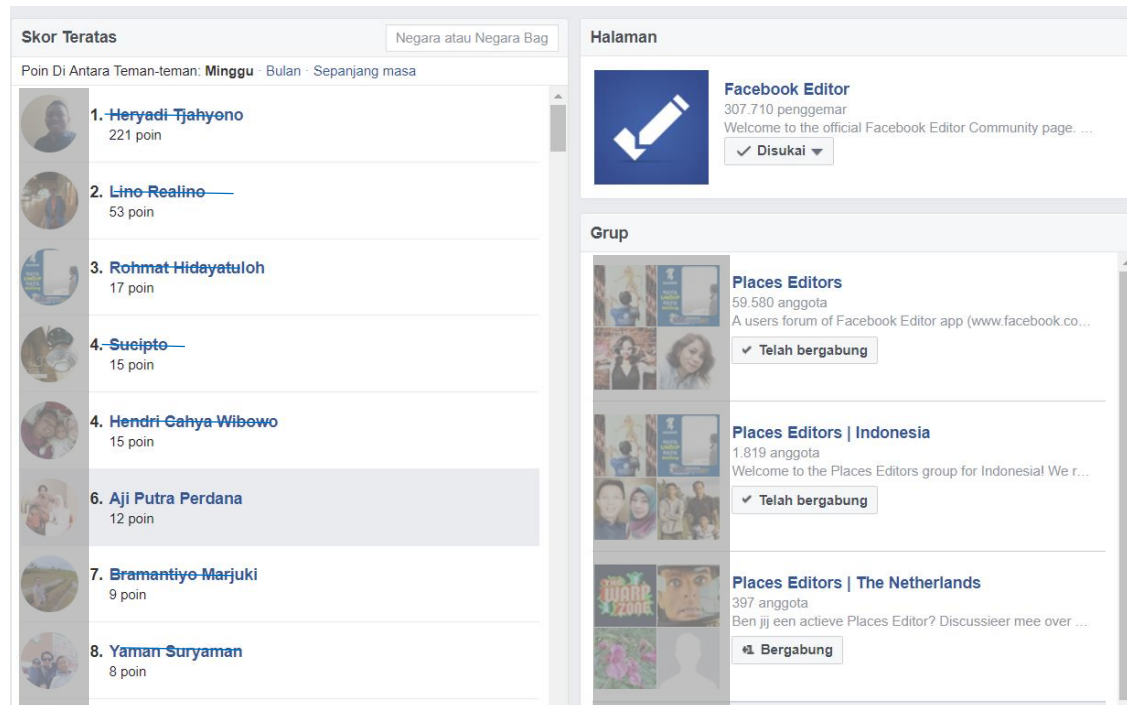
Google Local Guide



The image shows a screenshot of the Google Local Guides Connect website. The browser address bar shows the URL: <https://www.localguidesconnect.com/t5/Bahasa-Indonesia/Local-Guide-Summit-khas-Indonesia/m-p/211705>. The page header includes the Google logo and a search bar labeled 'Search the Community'. Below the header, there is a navigation bar with links: 'Local Guides Connect', 'Languages', 'Bahasa Indonesia', and 'Local Guide Summit khas Indonesia'. The main content area features a post by 'Sadeli_Zanikhan' (LEVEL 8) dated '04-16-2017 10:37 AM'. The post title is 'Local Guide Summit khas Indonesia'. The text of the post says: 'Teman-teman Local Guide Indonesia pasti udah tahu dong kalau bulan Oktober 2017 nanti akan diadakan acara Meet Up Internasional Local Guide yang disebut Local Guide Summit. Yup Local Guide Summit merupakan acara tahunan dari Local Guide sebagai apresiasi kepada seluruh Local Guide di seluruh dunia untuk saling berbagi pengalaman dan cerita masing-masing negara nya di kota San Francisco, Amerika. Acara Local Guide Summit ini tidak mudah loh untuk bisa mendapatkan salah satu peserta nya. Ada beberapa syarat dan kriteria yang harus dicapai oleh Local Guide untuk bisa mengikuti acara tersebut. Antara lain, harus level 5, aktif di Local Guide Connect, pernah menyelenggarakan acara meet up, dan sederet syarat lainnya. Belum lagi syarat paspor, Visa dan lancar berbahasa Inggris menjadi syarat penting lainnya.' On the right side of the page, there is a map of Indonesia with red location pins and a 'Recommendations' section listing 'Local Guide Summit khas Indonesia' multiple times.

Contributor and Community

Facebook Place Editors



Skor Teratas Negara atau Negara Bag

Poin Di Antara Teman-teman: **Minggu** · Bulan · Sepanjang masa

1. **Heryadi Tjahjono**
221 poin
2. **Lino Realino**
53 poin
3. **Rohmat Hidayatulloh**
17 poin
4. **Sueipto**
15 poin
4. **Hendri Cahya Wibowo**
15 poin
6. **Aji Putra Perdana**
12 poin
7. **Bramantiyo Marjuki**
9 poin
8. **Yaman Suryaman**
8 poin

Halaman

Facebook Editor
307.710 penggemar
Welcome to the official Facebook Editor Community page. ...
✓ Disukai

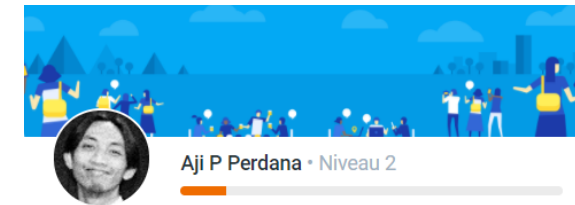
Grup

Places Editors
59.580 anggota
A users forum of Facebook Editor app (www.facebook.co...
✓ Telah bergabung

Places Editors | Indonesia
1.819 anggota
Welcome to the Places Editors group for Indonesian We r...
✓ Telah bergabung

Places Editors | The Netherlands
397 anggota
Ben jij een actieve Places Editor? Discussieer mee over ...
1 Bergabung

Google Local Guide



Aji P Perdana · Niveau 2
22 punten

MEER INFORMATIE OVER PUNTEN

Het kan 24 uur duren voordat punten zijn geüpdatet.
Punten gelden voor een plaats, niet voor een individuele foto of een individueel antwoord.

Reviews	2
Beoordelingen	0
Foto's	2
Plaatsen Met Antwoorden	0
Toegevoegde Plaatsen	0
Bewerkingen	0
Feiten Gecontroleerd	0

Richness and Vandalism of Place Names

Modeling People's Place Naming Preferences in Location Sharing

Jiali Lin, Guang Xiang, Jason I. Hong, Norman Sadeh

School of Computer Science, Carnegie Mellon University, PA, USA

{jialiul, guangx, jasonh, sadeh}@cs.cmu.edu

ABSTRACT

Most location sharing applications display people's locations on a map. However, people use a rich variety of terms to refer to their locations, such as "home," "Starbucks," or "the bus stop near my house." Our long-term goal is to create a system that can automatically generate appropriate place names based on real-time context and user preferences. As a first step, we analyze data from a two-week study involving 26 participants in two different cities, focusing on how people refer to places in location sharing. We derive a taxonomy of different place naming methods, and show that factors such as a person's perceived familiarity with a place and the entropy of that place (i.e. the variety of people who visit it) strongly influence the way people refer to it when interacting with others. We also present a machine learning model for predicting how people name places. Using our data, this model is able to predict the place naming method people choose with an average accuracy higher than 85%.

Author Keywords

Location sharing, Location-based service, Location representation, Place naming

"5837 Centre Ave." Instead, they often rely on a wide and rich range of terms such as "home," "Starbucks," "near Liberty Bridge," or "Chicago." These kinds of place descriptions let people modulate the amount of information they disclose to account for both privacy and utility considerations – the latter referring to how useful a given piece of information is likely to be to a particular individual in a given context. These examples illustrate the complex nature of place naming. A given location may be referred to in different ways depending on the situation.

Being able to computationally generate place names that capture these nuances could make location sharing applications more useful, enabling people to share meaningful information based on particular circumstances and giving them a wider range of privacy options. For example, a person might be willing to let people know they are at "home", but uncomfortable showing them their location on a map or disclosing its street address. In addition, generating meaningful place names could render the integration of location sharing with other services more valuable. For example, a person might want to share her location as a "home" rather than a "house" when messaging a friend.

Place Names

Semantic

Hybrid

Geographic

Personal

Functional

Business Names

Address

Landmark

Granularity

State

City

Region/
Neighborhood

Street/
Intersection

House/Building

Floor/Room

Lin, J., Xiang, G., Hong, J. I., & Sadeh, N. (2010, September). Modeling people's place naming preferences in location sharing. In *Proceedings of the 12th ACM international conference on Ubiquitous computing* (pp. 75-84). ACM.

Richness and Vandalism of Place Names



Geospatial Media and Communications

11 jam · 🌐

Someone changed the name of Donald Trump's transition headquarters, Trump Tower, to 'Dump Tower' on Saturday



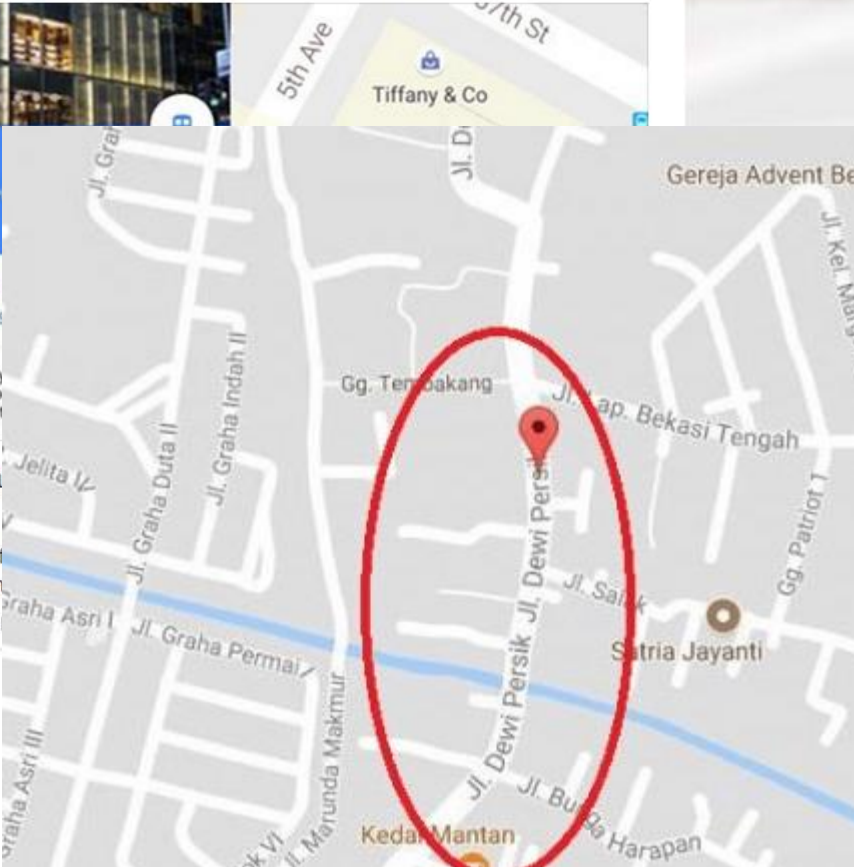
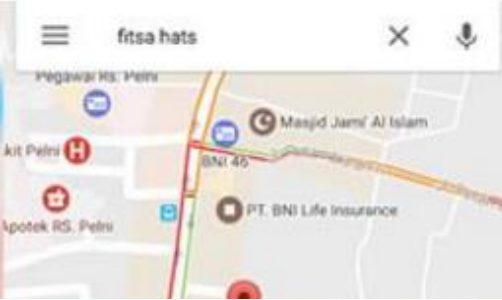
Trump Tower is a 58-story building located on Fifth Avenue and East 57th Street in Midtown Manhattan.

When Trump Maps

So, Google Maps

question isn't a fan

GEOSPATIALWOR



Developers: Facebook vs Google Places (Names) Information

<https://developers.facebook.com/docs/places/>

facebook for developers | Produk | Dokumentasi | Alat & Dukungan | Berita | Video

Cari

Semua Dokumen ▾ | Dok / Places Graph / Pada Halaman Ini

Places Graph

Sinopsis
iOS
Android
Web
Fields
Token Akses
FAQ

Search for places, enabling place discovery, location sharing, and geo-tagging. Add location awareness to your app. Understand people's current place, and access information about it, including photos and ratings.

 **iOS**
 **Android**
 **Web**

Veilig | <https://developers.google.com/places/documentation/>

Google Places API | Home | Documentation | Pricing and Plans

Documentation

Places APIs and Related Products

The Google Places APIs belong to the family of Google Maps APIs. Not sure which API you need? [Try the API picker.](#)

Google Places APIs

[Google Places API for Android.](#) Connect your users with information about millions of places.
[Google Places API for iOS.](#) Connect your users with information about millions of places.
[Places Library in the Google Maps JavaScript API.](#) Up-to-date information about millions of locations.
[Google Places API Web Service.](#) Up-to-date information about millions of locations.

Concepts

[Place IDs.](#) Unique identifier for a place, supported in many APIs.
[Place types.](#) Supported values for the `types` property.



<https://www.kaggle.com/c/facebook-v-predicting-check-ins#description>



Facebook V: Predicting Check Ins

Identify the correct place for check ins
1,212 teams · a year ago

[Overview](#) [Data](#) [Kernels](#) [Discussion](#) [Leaderboard](#) [Rules](#) [Late Submission](#)

Overview

[Description](#)
Evaluation
Timeline
Work At Facebook

Ever wonder what it's like to work at Facebook? Facebook and Kaggle are launching a machine learning engineering competition for 2016. Trail blaze your way to the top of the leaderboard to earn an opportunity at interviewing for one of the 10+ open roles as a software engineer, working on world class machine learning problems.



The goal of this competition is to predict which place a person would like to check in to. For the purposes of this competition, Facebook created an artificial world consisting of more than 100,000 places located in a 10 km by 10 km square. For a given set of coordinates, your task is to return a ranked list of the most likely places. Data was fabricated to resemble location signals coming from mobile devices, giving you a flavor of what it takes to work with real data complicated by inaccurate and noisy values. Inconsistent and erroneous location data can disrupt experience for services like Facebook Check In.

<https://www.kaggle.com/c/facebook-v-predicting-check-ins/kernels>

 [Competitions](#) [Datasets](#) [Kernels](#) [Discussion](#) [Jobs](#) [Sign In](#)



Facebook V: Predicting Check Ins

Identify the correct place for check ins
1,212 teams · a year ago

[Overview](#) [Data](#) [Kernels](#) [Discussion](#) [Leaderboard](#) [Rules](#) [New Kernel](#)

All Mine

Sort by Hotness

All Languages All Output Types

155			Random Forest And KNN on a few blocks run a year ago by Alexandru Papiu	R	36
121			Exploratory Data Analysis run a year ago by msjgriffiths	R	16
60			Data exploration and visualisations run a year ago by BeyondBeneath	Py	14

Lesson learned

- Details description of place names information
- Review/editor procedure by voluntary people/ contributor
- How to engage and maintain with contributor within community
- Gamification, point rewards system
- How to engage with Community: online vs meetup
- Place names disambiguation, decision of place names to be displayed or approved? (Machine Learning, Natural Language Processing, etc.)