

Google Summit 2019: Introduction of Data Studio

Data Visualization

Stephen Li

- Introduction to and demonstration of using **Google Suite for Education**;
- Hands-on practice of using Google Suite and **Google Data Studio**;
- Questions and answers.





Data



10001000000100001001000100100010010001001000100100010010001010011011100010
0001110010100111000010100010000100010001000110000010001001001000001
000010001001000010000100010001010001001001010011011100010000111
001010011100001010001000010001000110000010001001001000001000010
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001010001001001010011011100010000111001010011100001010001000010

ig

Key Question:

How to read the data?



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“Let the Dataset Change Your Mindset”

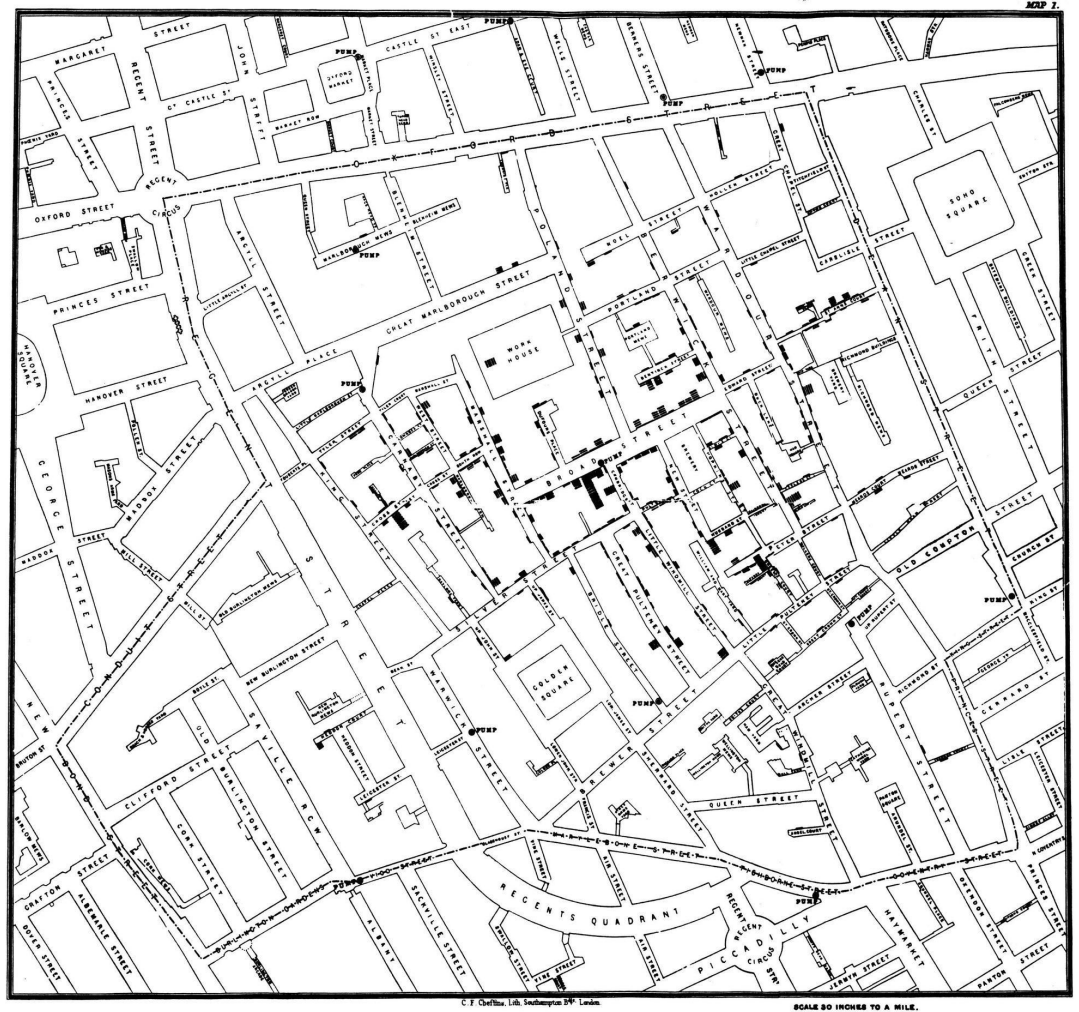
Hans Rosling

Professor of International Health at Karolinska Institute (Sweden)

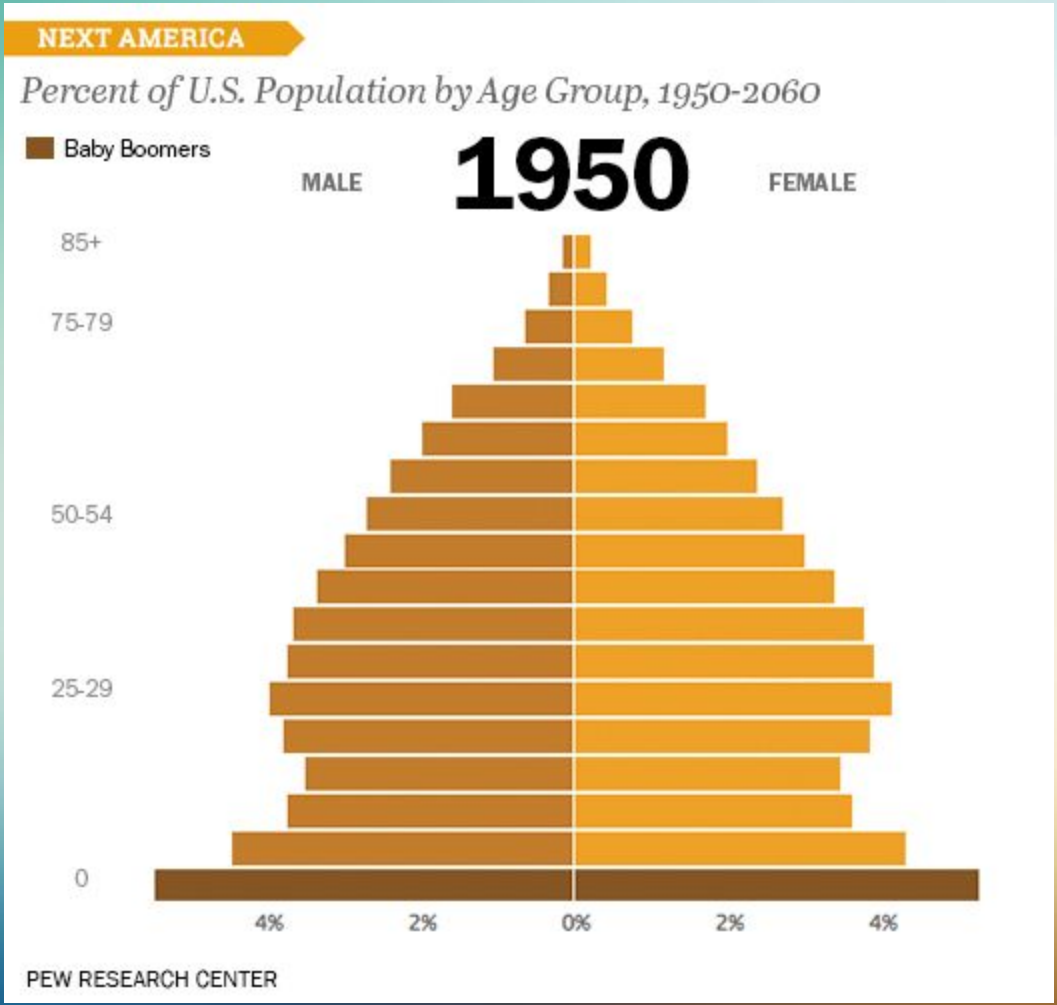
United Nations Population Award

1854 Broad Street Cholera Outbreak Map

The John Snow Cholera map is essentially an early dot map visualization. It uses small bar graphs on city blocks to mark the number of cholera deaths at each household in a London neighborhood. The concentration and length of these bars show a specific collection of city blocks in an attempt to discover why the trend of deaths is higher than elsewhere. **The finding: the households that suffered the most from cholera were all using the same well for drinking water.**



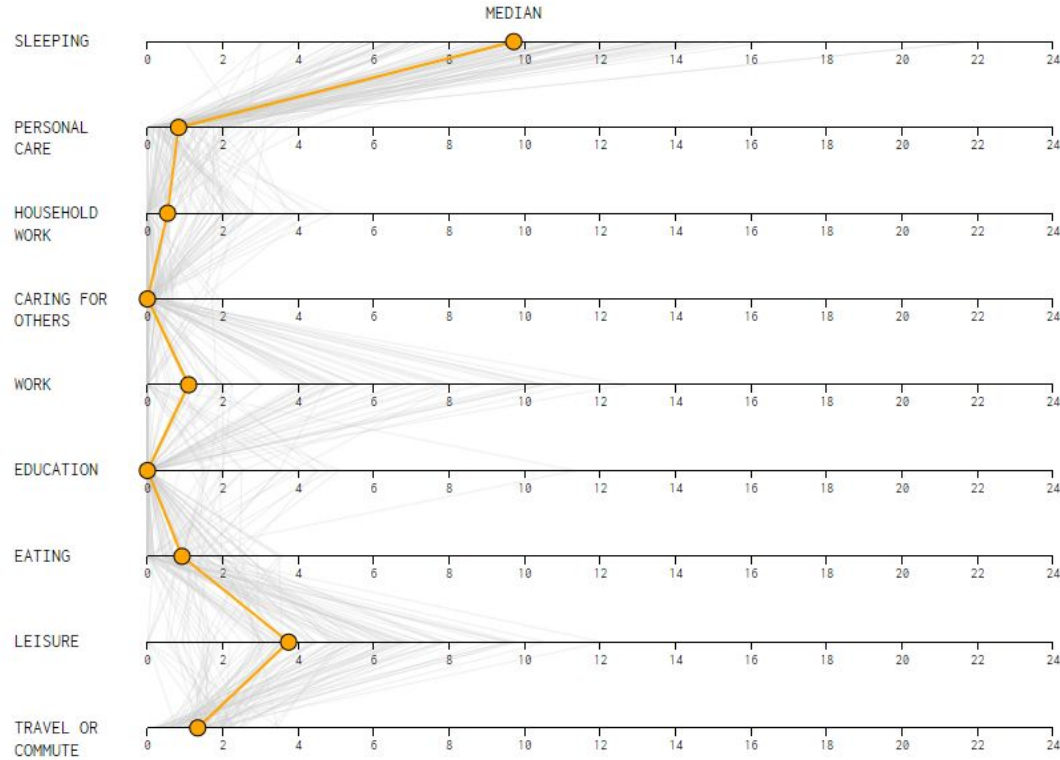
Animated



Interactive

I am **female** **18 to 24** years old and **employed**

Show me the hours spent on a **weekend**



SCALE: Relative Absolute

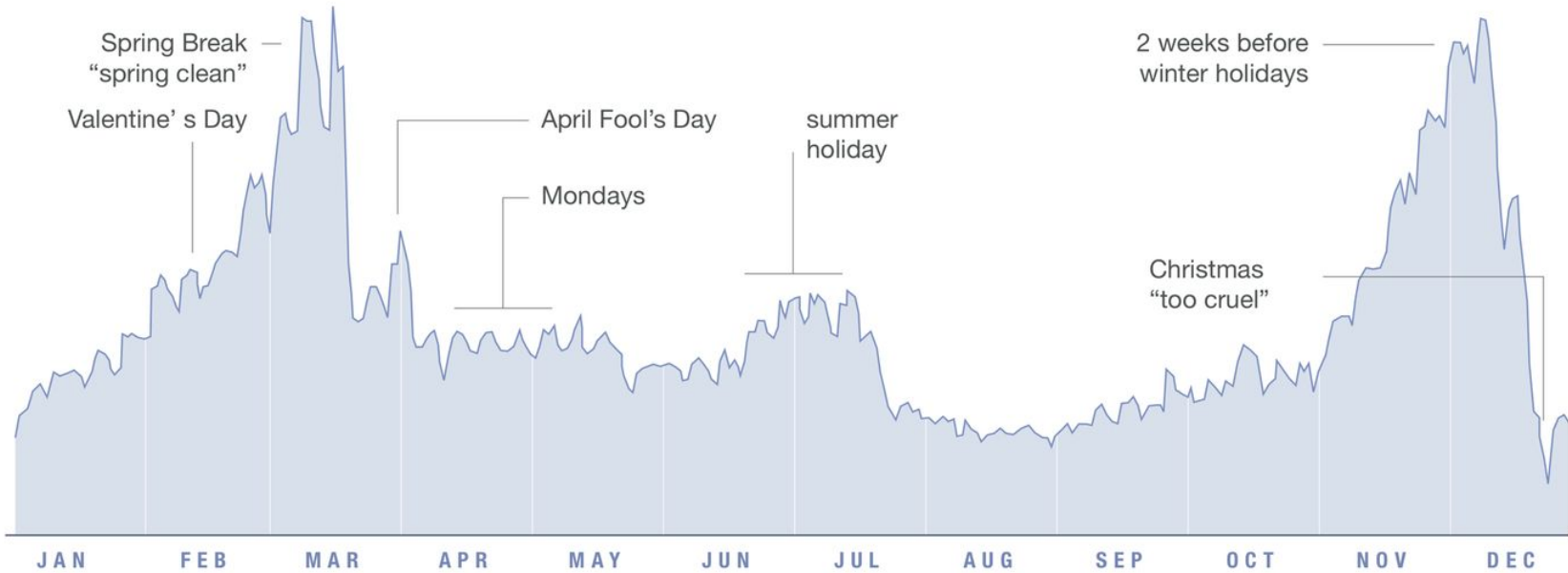


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iTLE

Peak Break-Up Times

According to Facebook status updates



Static

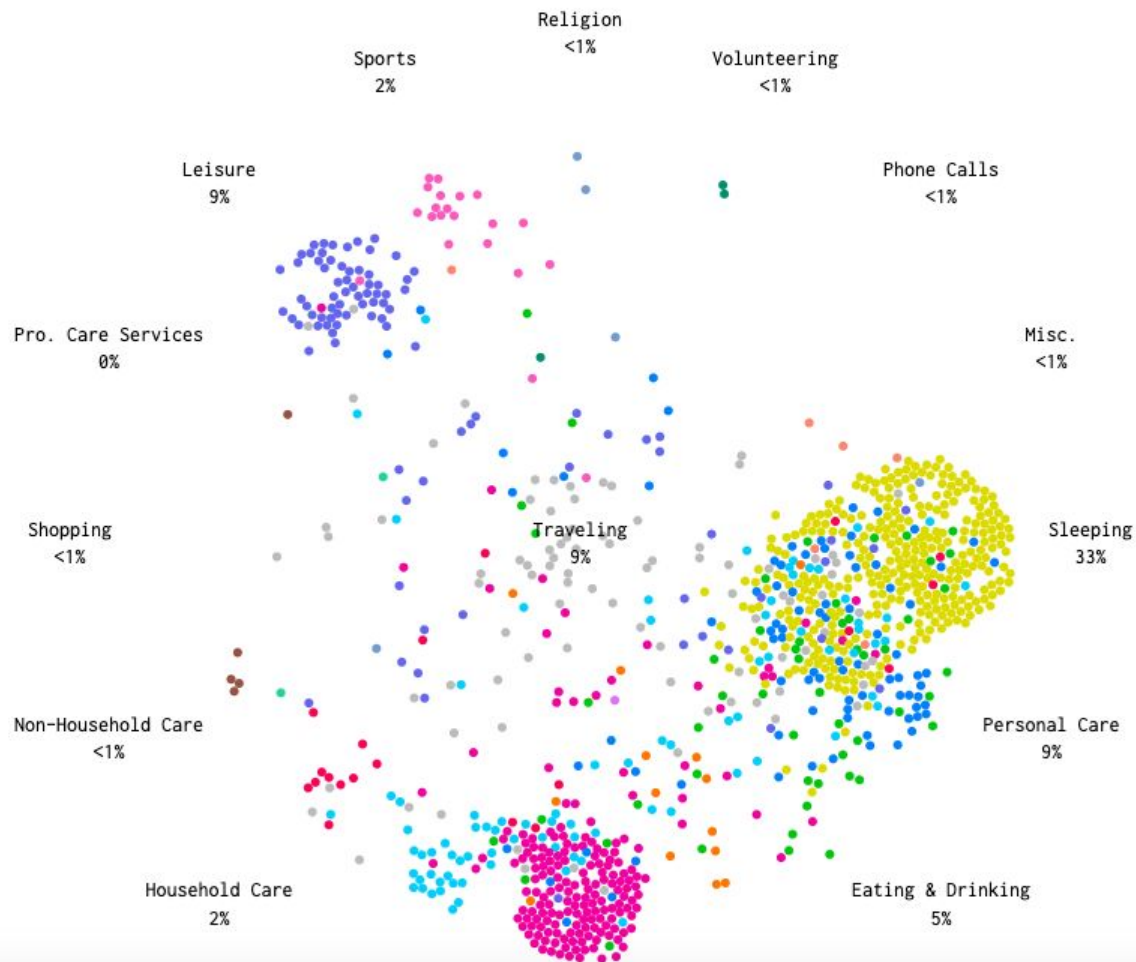
7:39am

SLOW

MEDIUM

FAST

It's wake up time for most. Time to start the day with morning rituals, breakfast and a wonderful commute.





iTLE



ay, MediaTek MT8173C Processor, 4GB LPDDR3, 64 GB eMMC, Chrome OS, 81HY0000US, Blizza-
rd White

<http://camelcamelcamel.com/product/B07GM2J11Q>



Price type	Lowest	Highest
Amazon	\$199 (Nov 23, 2018)	\$299.99 (Nov 27, 2018)

Amazon - \$249.99

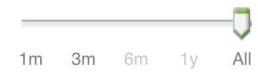
3rd Party New - \$264.89

3rd Party Used - \$232.21

Amazon Price History

Type	Price	When
Current	\$249.99	Apr 07, 2019
Highest *	\$299.99	Nov 25, 2018
Lowest *	\$199.00	Nov 23, 2018

Date Range



Price Type

- Amazon
- 3rd Party New
- 3rd Party Used

Chart Options

- Close-up View
- Remove Extreme Values



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機票

酒店

租車



香港 (任何) - 大阪 (任何)

1 成人 | 經濟艙

4月16日 週二

4月23日 週二

顯示整個月

可能需要收取額外行李費

獲取價格通知

依最便宜排序的 377 個結果 (共 1025 個)

排序方式 最便宜優先

轉機次數

直飛

HK\$3,835

轉機1次

HK\$2,757

轉機2次以上

無

出發時間

去程

00:00 - 23:59



回程

00:00 - 23:59



旅行總時間

4 小時 - 24.5 小時

最優
HK\$3,835

3 小時 45 分鐘 (平均)

最便宜
HK\$3,835

3 小時 45 分鐘 (平均)

最快
HK\$4,229

3 小時 38 分鐘 (平均)



08:05

HKG

3 小時 35 分鐘

直飛

12:40

KIX



08:50

KIX

3 小時 55 分鐘

直飛

11:45

HKG

3 個優惠, 價格低至

HK\$3,835

選擇 →



12:40

HKG

3 小時 50 分鐘

直飛

17:30

KIX



08:50

KIX

3 小時 55 分鐘

直飛

11:45

HKG

8 個優惠, 價格低至

HK\$4,066

選擇 →



07:05

HKG

3 小時 55 分鐘

直飛

12:00

KIX

5 個優惠, 價格低至

HK\$4,220

選擇 →

意見反饋

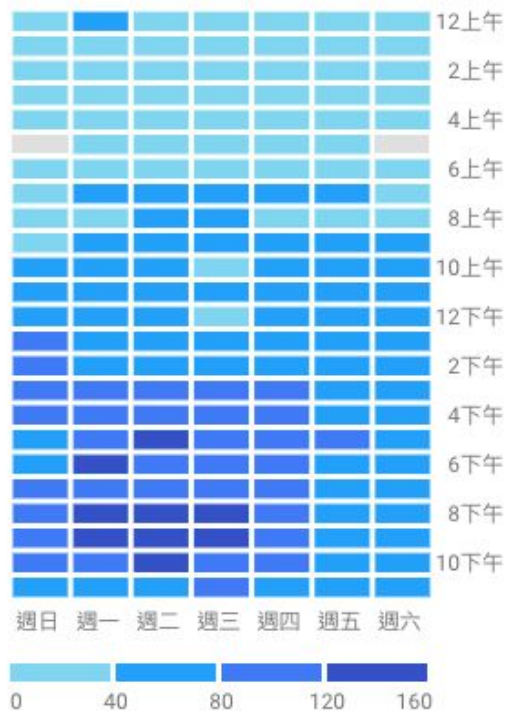


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您的使用者會在哪些時段造訪？

Heatmap

按時段劃分的使用者



最近 90 天 ▼

您的使用者位於哪些地區？

依國家/地區劃分的工作階段

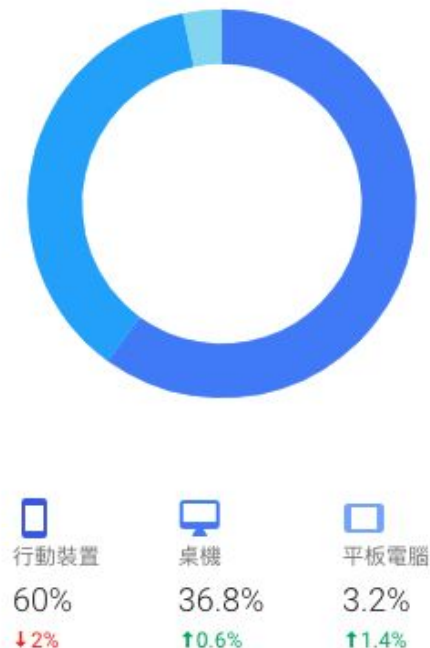


最近 7 天 ▼

[地區總覽 >](#)

您的使用者常使用哪些裝置？

按裝置劃分的工作階段



最近 7 天 ▼

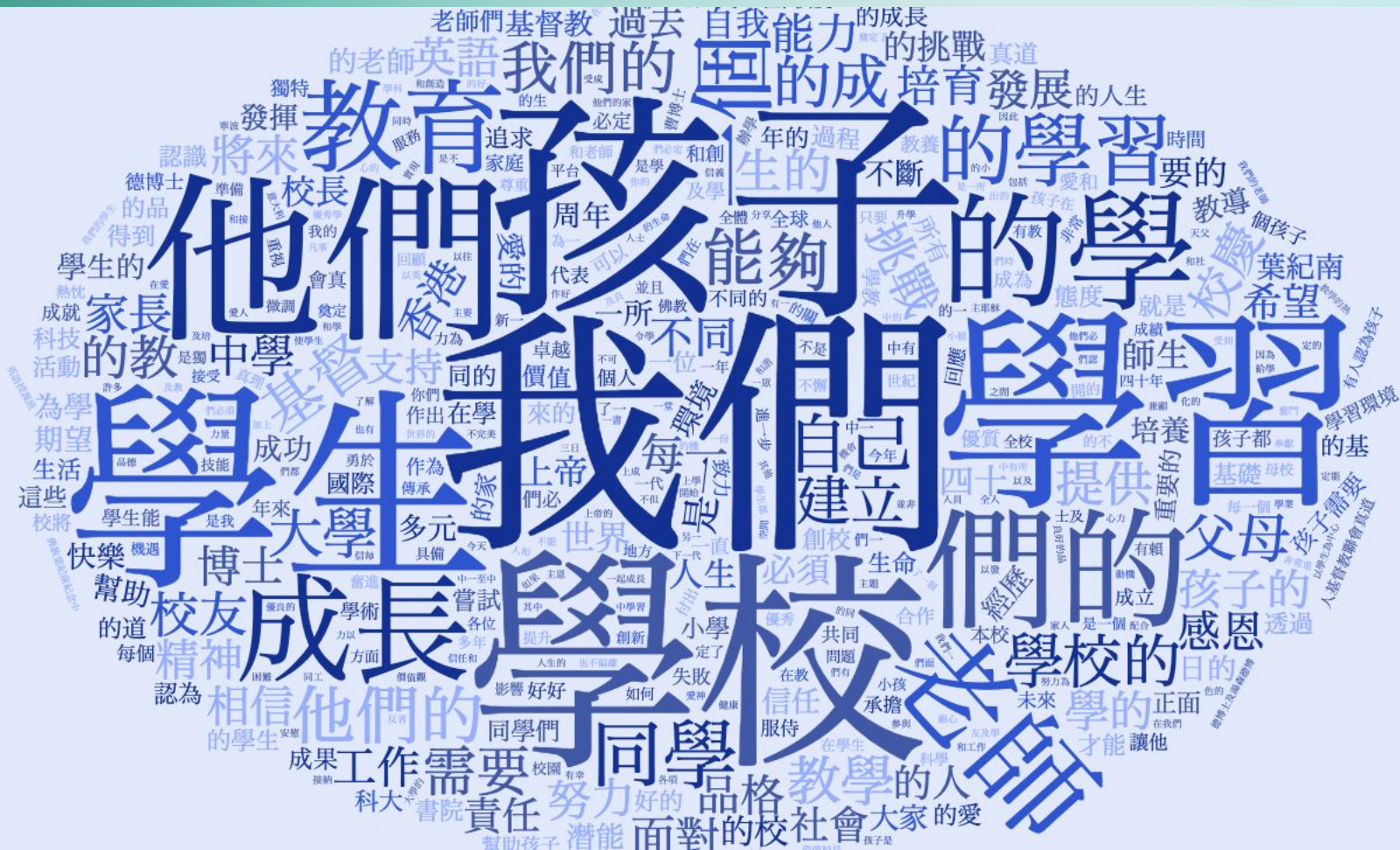
[行動裝置總覽 >](#)

Word Cloud



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Data Visualization

Data visualization



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- Huge amount of data in easily digestible visuals.
- The simplest and the most powerful
- **Static, animated and interactive**



Why we need to make data visualized in business?

- Identify areas that need attention or improvement.
- Clarify which factors influence customer behavior.
- Help you understand which products to place where.
- Predict sales volumes.



How about in education?

- Identify areas that need attention or improvement.
- Clarify which factors influence **customer** behavior.
- Help you understand which **products** to place where.
- Predict **sales** volumes.

Visual Literacy

“Most of us need to listen to the music to understand how beautiful it is. But often that’s how we present statistics: we just show the notes, we don’t play the music.”

Hans Rosling

Professor of International Health at Karolinska Institute (Sweden)

United Nations Population Award

data



insight



narrative

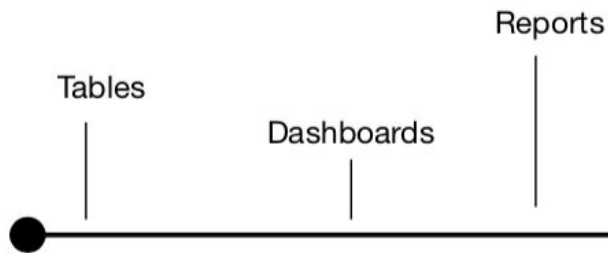


Song

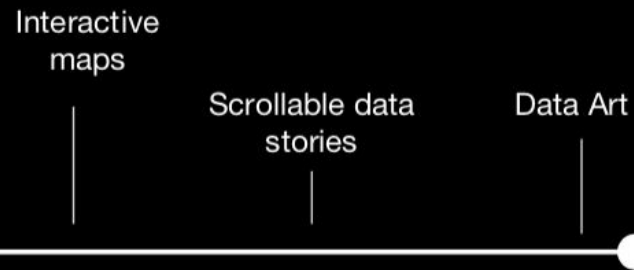
data
story



Truth



Beauty



Data Visualization Aids Decision-making

Data Visualization Aids Decision-making



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Decision making is supported by the data and information

Accurate, unbiased data visualizations is decision-making tools



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Google Data Studio

Data
+
Organization
+
Dashboard

Key Features of Google Data Studio



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- Totally Cloud based
- Create detailed reports and dashboards
- Unite data in one place
- Create compelling visualizations, and
- Share!



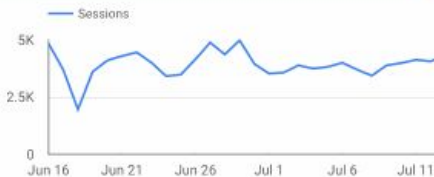
iOS
Sessions
56,770



Android
Sessions
49,799



Other
Sessions
3,829



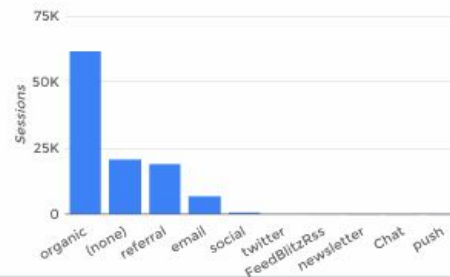
Mobile Operating System Breakdown

Operating System	Users	Sessions	% New Sessions	Bounce Rate	Avg. Session Duration
1. iOS	43,416	56,770	67.74%	89.05%	00:00:55
2. Android	38,831	49,799	71.14%	85.08%	00:01:10
3. (not set)	853	1,057	73.04%	79.47%	00:01:36
4. Windows Phone	843	1,056	68.66%	85.13%	00:01:06
5. Windows	788	939	72.20%	82.00%	00:01:29
6. BlackBerry	498	622	68.81%	86.01%	00:01:11
7. Nokia	45	58	74.14%	84.48%	00:00:59
8. Samsung	36	41	80.49%	85.37%	00:00:42
9. SymbianOS	37	41	90.24%	85.37%	00:01:16
10. Playstation Vita	8	8	100.00%	87.50%	00:01:04

Mobile Geographic Report



Mobile Sessions by Medium



Mobile Goal Analysis

Goal Completions
7,439

Goal Conversion Rate
6.74%

建立新報表

所有範本



空白報表



Acme Marketing
Google Analytics



Search Console Report
Search Console



Google Ads Overview
Google Ads

全部 我擁有的項目 與我共用的項目 垃圾桶

搜尋



報表

資料來源

多層檢視 研究室

產品總覽

報表庫

連結至資料

過去 30 天

擁有人

我上次開啟的日期

18-19 年度學生自我反思	Li Tien Man Stephen李天民老師	Mar 18, 2019	⋮
更早	擁有人	我上次開啟的日期	
[Sample] Google Analytics Ecommerce Report	Google Data Studio	Feb 14, 2019	⋮
未命名報表	Li Tien Man Stephen李天民老師	Feb 14, 2019	⋮
test 5M	Li Tien Man Stephen李天民老師	Feb 14, 2019	⋮
dc01 - 2	Li Tien Man Stephen李天民老師	Jan 14, 2019	⋮
dc01	Li Tien Man Stephen李天民老師	Jan 14, 2019	⋮





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Google Analytics



🔍 搜尋報表和說明

Google Analytics (分析) 首頁

深入分析

首頁

自訂

報表

即時

目標對象

客戶開發

行為

轉換

探索

管理



當下的活躍使用者

2

每分鐘瀏覽量



熱門活躍網頁

/a/smcc.edu.hk/web/

活躍使用者

1

/a/smcc.edu.hk/web/media-1

1

即時報表 >

您如何開發使用者？



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Data Studio



加入資料來源

圖表會使用資料來源提供的資料。請選取現有的資料來源，或按一下 [建立新資料來源]。

[好，我知道了](#)

選取資料來源



- 18-19 年度中三學生自我反思 (回...
- 18-19 年度高中學生自我反思 (回...
- 5M Marksheet - 工作表1
- 5M Marksheet - 工作表1
- 5M Marksheet - 工作表1
- 5M Marksheet - 工作表1
- 5M Marksheet - 工作表1
- E-booking (回應) - 表格回應 1
- Untitled form (Responses) - Form r...
- Untitled form (Responses) - Form r...



建立新資料來源



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- 5M Marksheet - 工作表1
- 5M Marksheet - 工作表1
- E-booking (回應) - 表格回應 1
- Untitled form (Responses) - Form r...
- Untitled form (Responses) - Form r...

[+ 建立新資料來源](#)

未命名的資料來源

報表中的欄位編輯功能：[開啟](#)[取消](#)[連結](#)

搜尋

開發人員

Google Connectors (18)

由「數據分析」製作及支援的連接器。[瞭解詳情](#)

BigQuery

開發者：Google

連結至 BigQuery 表格和自訂查詢。[瞭解詳情](#)

Campaign Manager

開發者：Google

連結至 Campaign Manager 資料。[瞭解詳情](#)

Cloud Spanner

開發者：Google

連結至 Google Cloud Spanner 資料庫。



Display & Video 360

開發者：Google

連結至 Display & Video 360 報表資料。



Google Ad Manager 360

開發者：Google

連結至 Google Ad Manager 資料。[瞭解詳情](#)

Google Ads

開發者：Google

連結至 Google Ads 成效報表資料。[瞭解詳情](#)

Google Analytics (分析)

開發者：Google

連結至 Google Analytics (分析) 報表資料檢視。[瞭解詳情](#)

Google Cloud Storage

開發者：Google

在 Google Cloud Storage 中查看檔案。[瞭解詳情](#)

Google 試算表

開發者：Google



MySQL

開發者：Google



MySQL 適用的 Cloud SQL

開發者：Google



PostgreSQL

開發者：Google

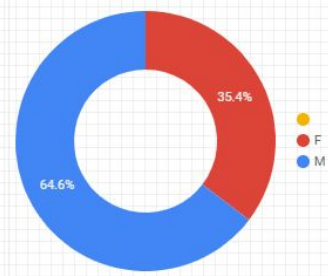
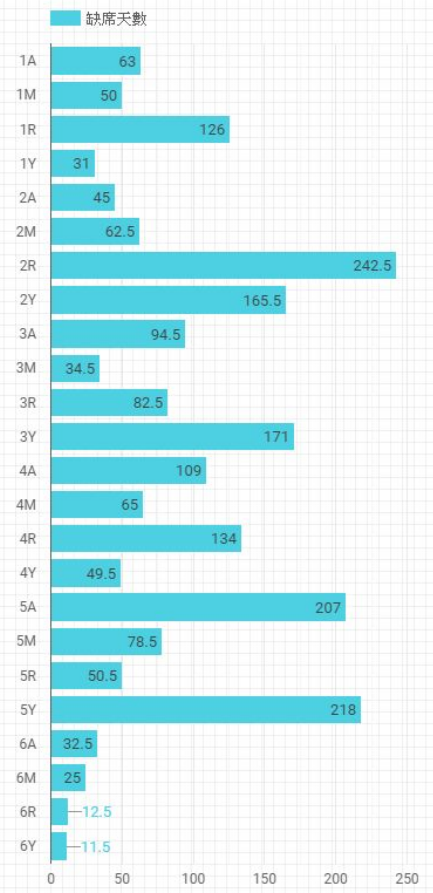


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CName
737

Class





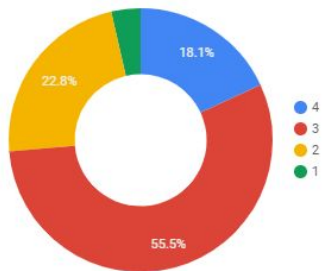
聖公會聖馬利亞堂莫慶堯中學

18-19 年度學生自我反思

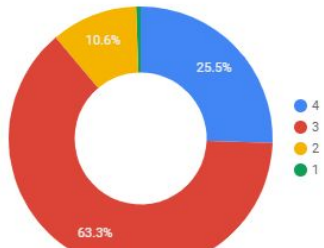
班別

性別

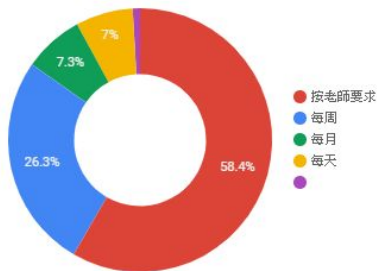
我是一個認真學習的學生。



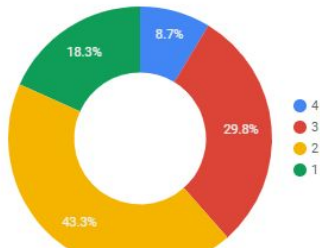
我上課時專心學習。



如有做預習，我的習慣是：



我下課後有溫習。



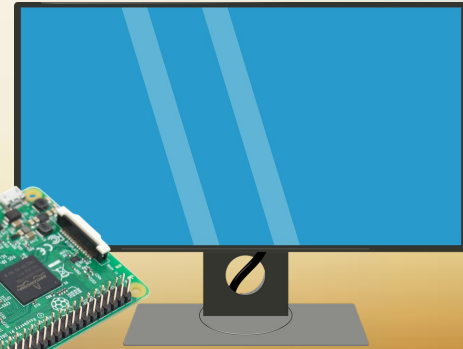
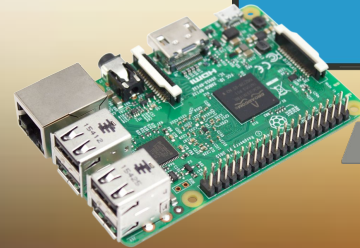
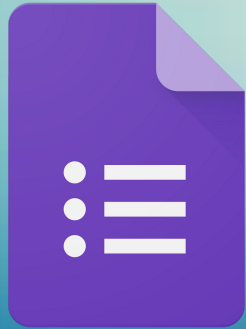
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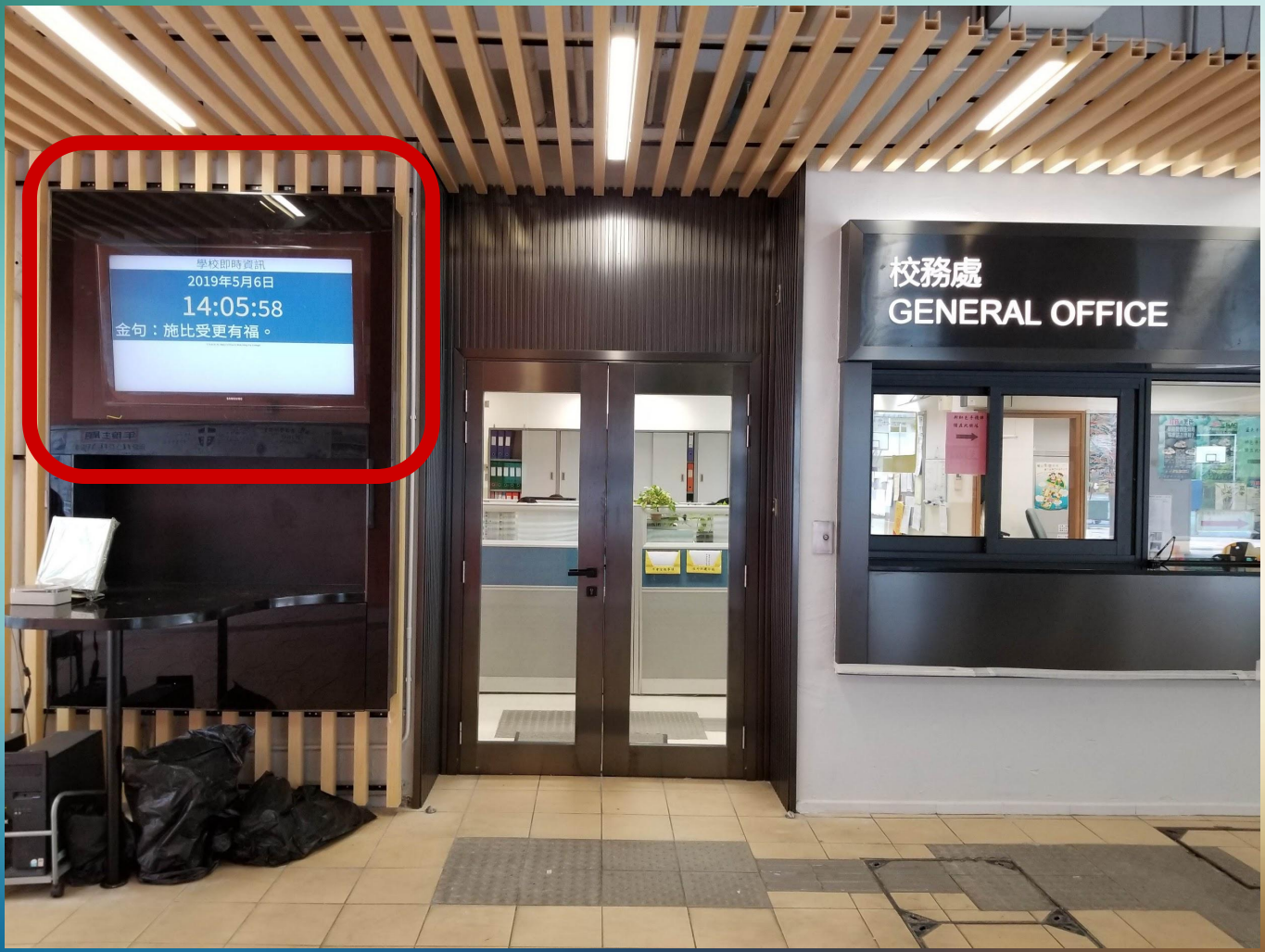


Google
Sheets



Google Data Studio





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Thank you!

ltm@smcc.edu.hk