



Using Big Data to analyze recommendations by Influencers about Tourist Destinations

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Goals

- This session will help us **understand** the amazing stream of data available
- Be aware of many geo visualization techniques.
- **Share** experiences and challenges from SolidQ projects during this year in the geo visualization field.
- Demos, Demos, Demos! **Let's enjoy it!** 😊



Topics

- Geo-spatial Analysis
- Visualization
 - Reporting Services
 - Customized Visualization
 - Excel Apps
 - Power View
 - GeoFlow
- Conclusions and Questions



DESTINATIONS & MARKETS



Vilanova i La Geltru, la costa de Barcelona

AGENDA

- 17/08/10 02:00 Barcelona.
Els experts repliquen que la prioritat és ara fiscal
- 17/08/10 02:00 Barcelona.
Millet volia cobrar un 6 per cent amb l'hotel

NEWS

- 17/08/10 10:52 Barcelona.
Nadal: "Un país que no tinguis aquesta eco submergida estaria en revolta social"



Vilanova Park ★

Desde **C 47**
por habitación
por noche

Seleccionar



Atenea Park ★★★

Desde **C 47**
por habitación
por noche

Seleccionar



Vilanova Park ★

Desde **C 47**
por habitación
por noche

Seleccionar



Atenea Park ★★★

Desde **C 47**
por habitación
por noche

Seleccionar



Submarinismo

Desde **C 47**

Seleccionar



Alquiler Barcos

Desde **C 47**

Seleccionar

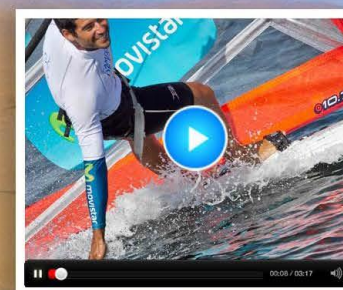
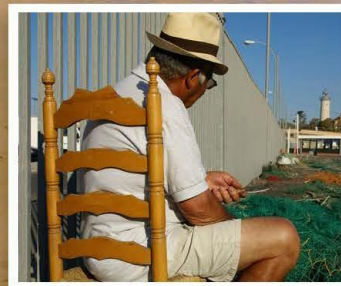
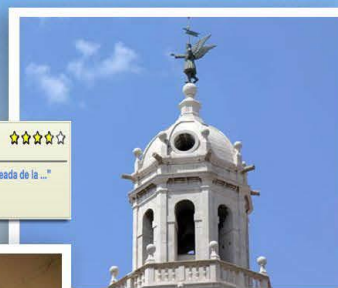


Surfing

Desde **C 47**
por habitación
por noche

Kitesurf en la Comunitat ★★★★★

Artículo: "Leticia Quesada la kiler más laureada de la ..."
0 comentarios | 16-08-2010



YouTube

2:05

2:05

2:05

2:05

2:05

Facebook

Martha

Rolando

Luis



Surrounded by opinions

facebook

12 Tb
day

21 Pb
Hadoop
cluster

bing

7 Pb
Month
(search queries info)

twitter

1 Tb
Tweets
day

7 Tb
Data day

KLOUT

75 Mi
Scores
day

4 B
Graph
edg/day

FINANCIAL TIMES

USA TODAY

Millions of
opinions

THE WALL STREET JOURNAL.

BBC

Ben Chams - Fotolia

What is Sentiment?

- Feelings, Opinions, Emotions
 - Like
 - Dislike
 - Good
 - Bad
 - ...



Some examples



paulo @paulomors

Barcelona Beating Milan 4-0 and a gallon of Coke, best day of the year 😊



αustin ☆ @AustinJohnsto

A 2 hour delay is like when a restaurant only has Pepsi products. It'll work but ill still be very disappointed.😞



Trace @trace_haf

Drinking more Coke than water every day does no good for you health.



DONALD @donald150

My budget decides whether coke or pepsi, always buy the cheaper



Not only Twitter!

amazon

The Walking Dead Season 3 (3300 customer reviews)



Awesome season opener! October 15, 2012 By **K. Erwin** ★★★★★

After sticking through season two, which was a lot of looking for a little girl and standing around on a farm waiting for something to happen, I hoped that they'd pick up the pace a little with season three. The premiere doesn't disappoint!

facebook

The Walking Dead Season 3 Mid-Premiere (72K Likes, 7K comments)

Timothy Berteau You guys are crazy. One boring episode and you think the show sucks, did you forget how awesome the two episodes before it were? Not every episode is going to be action packed. Season 1 and 2 had some very boring moments as well.

18 February at 00:58 via mobile · 5 likes



Valuable Information for our Business

Questions

- Is this review positive or negative?
- Do this Twitter User like or dislike my new show?
- What are they saying about our company or services?
- How are Facebook User's Attitudes about the next election?

Is that the only valuable info?



MORE Valuable Information for our Business

Questions

- Is this positive/negative review **affecting my sales?**
- **Have we increased our sales** because of positive tweets? Can we learn anything from opinions to improve our products?
- How are people responding to this **campaign?**



What is Sentiment Analysis?

- Text Categorization (Opinion Mining)
 - Positive / Negative / Neutral
 - 1, 2, 3, 4, 5 Stars
 - For / Against



Sentiment Analysis Techniques

Techniques

- Natural Language Processing
- Basic Statistics
 - Clustering
 - Fuzzy Components
 - Classification
 - Estimation

Tools

HDInsight, SSIS, SSAS DM, FullText Search (Semantic Search)



Dictionaries

- Match words

"Coke is the **best** & **coolest** drink on the market"

- Some Other Database Example

- SentiWordNet

<http://sentiwordnet.isti.cnr.it/>

Tone ▾	Index ▾	Dictionary ▾
Positive	10	amazing
Positive	9	awesome
Positive	8	best
Positive	7	excellent
Positive	6	exciting
Positive	5	great
Positive	4	good
Positive	3	rocks
Positive	2	cool
Positive	1	:)
Neutral	0	
Negative	-1	:(
Negative	-2	poor
Negative	-3	bad
Negative	-4	criticized
Negative	-5	attacked
Negative	-6	humiliated
Negative	-7	sucks
Negative	-8	terrible
Negative	-9	horrible
Negative	-10	worthless



Looking at some Twitter Sentiment

DEMO (TWITTER ANALYTICS)



GeoSpatial Analysis

A	B
EnglishCountryRegionName	United States
Row Labels	Sum of SalesAmount
Alabama	\$37.29
Arizona	\$2,104.02
California	\$5,714,257.69
Florida	\$7,760.91
Georgia	\$1,658.92
Illinois	\$2,828.09
Kentucky	\$216.96
Massachusetts	\$2,049.10
Minnesota	\$91.28
Mississippi	\$82.59
Missouri	\$81.46
Montana	\$92.08
New York	\$4,124.19
North Carolina	\$7.28
Ohio	\$359.18
Oregon	\$1,170,991.54
South Carolina	\$2,434.92
Texas	\$1,789.10
Utah	\$4,419.58
Virginia	\$39.98
Washington	\$2,467,248.34
Wyoming	\$7,115.01
Grand Total	

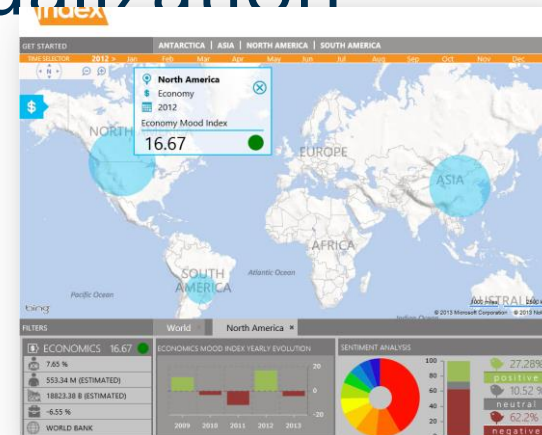
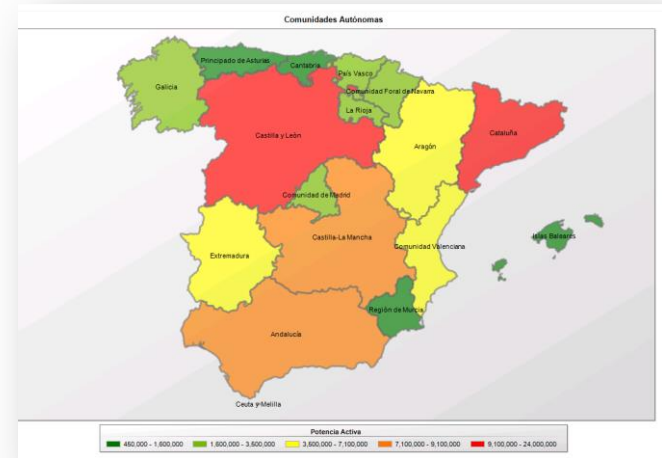


Extract hidden patterns and trends

Types of Visualization (I)

Corporate BI

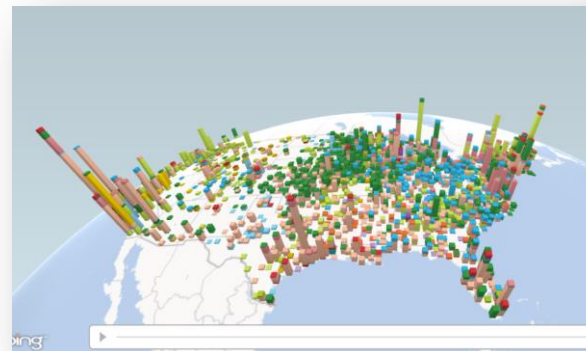
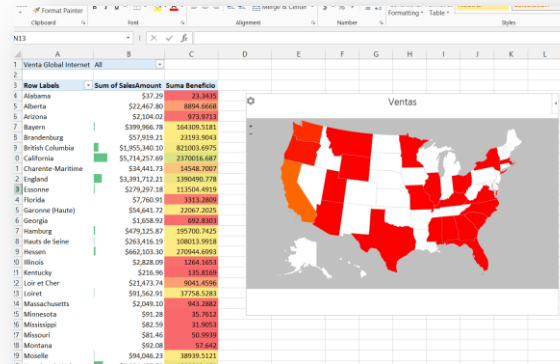
- Reporting Services
- Custom Corporative Visualization



Types of Visualization (II)

Personal BI

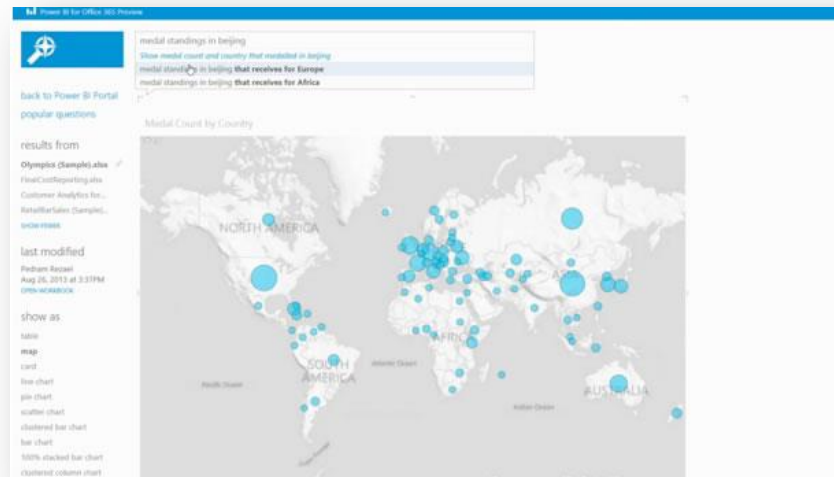
- Excel Apps
- Power View
- Power Map



Types of Visualization (III)

Team BI

- Power BI in Office 365
 - Q&A



Geo Analysis with Social Networks

DEMO (TOYOTA)

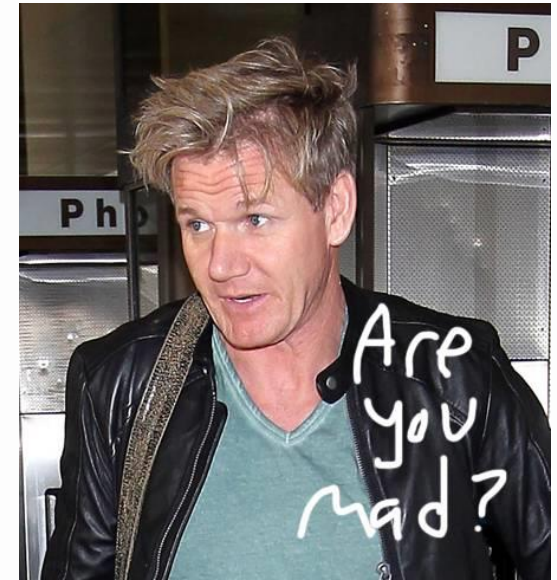


AND THE SPECIAL DEMO...



4 Key elements in a successful 3*** Michelin Restaurant

- Strong personality
- Delicious raw material
- Motivated working team
- **Best location**





Picking up the best location for our restaurant

DEMO



VIDEO

Looking at some Twitter Sentiment



THANK YOU...

@FERNANSQL

