

# Machine learning trends and applications

8 Μαΐου 2017, Τεχνόπολη Θεσσαλονίκης

**Δρ. Σαρηγιαννίδης Γεώργιος**

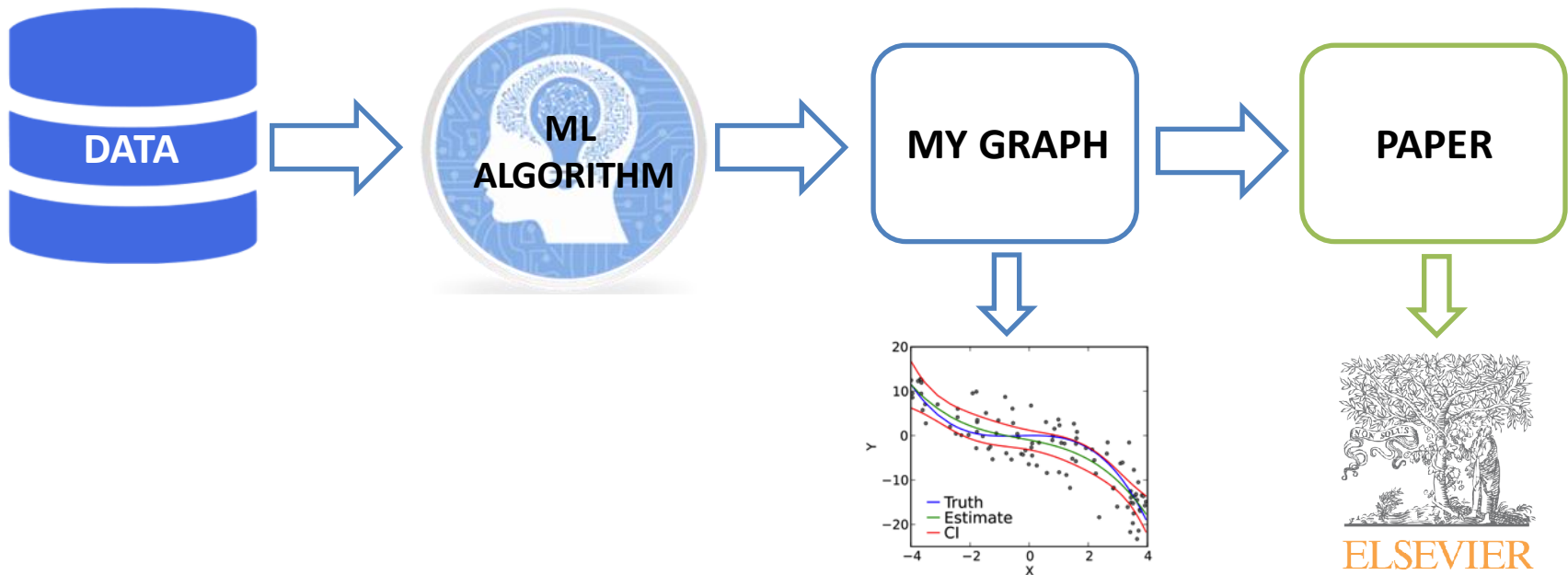
Πρόεδρος & Διευθύνων Σύμβουλος

# My View of Machine Learning in Old Times






## Wikipedia:

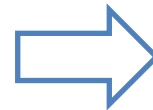
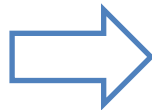
Machine Learning formal definition: "A computer program is said to learn from experience  $E$  with respect to some class of tasks  $T$  and performance measure  $P$  if its performance at tasks in  $T$ , as measured by  $P$ , improves with experience  $E$ ."

Tom M. Mitchell



# My View Machine Learning Now

Total Population	Internet Users	Active Social Media Users	Unique Mobile Users	Active Social Mobile Users
				
7.476 Billion	3.773 Billion	2.789 Billion	4.917 Billion	2.549 Billion
Urbanization 54%	Penetration 50%	Penetration 37%	Penetration 66%	Penetration 50%



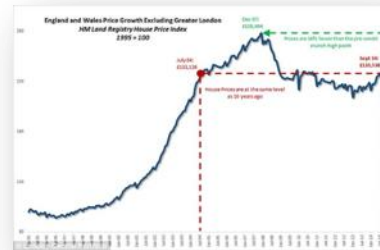
# Predicting Land Prices



## Land Price & Features



Price

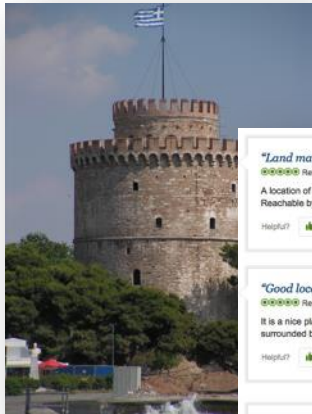


Land Size

## Price




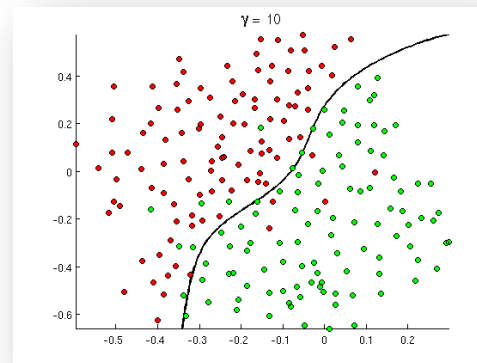
# Sentiment Analysis – Reviews



**"Land mark of Thessaloniki"** NEW  
★★★★★ Reviewed yesterday via mobile  
A location of must have seen. To continue from there to the archeological museum. Reachable by foot along the sea side boulevard  
Helpful? Thank Matly H Report

**"Good location and place"** NEW  
★★★★★ Reviewed 2 days ago via mobile  
It is a nice place to visit and go upitears. Tower is located on the embankment and surrounded by banches and grass-places.  
Helpful? Thank Earewad 3 Report

**"Interesting & nice top view"** NEW  
★★★★★ Reviewed 3 days ago via mobile  
Has an interesting history, the view from the top is very good. It is worth seeing !! One of the things you must visit in Thessaloniki!  
  
Helpful? Thank Yordanka P Report




# Article Search – Data mining



## History

## Sports

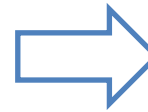
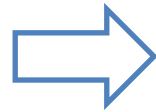
**The Arch of Galerius**

The most well known monument of Thessaloniki after the White tower. It is part of the Galerius complex of buildings. The Arch was built in the Roman era (306 AD). It is decorated with wonderful reliefs simultaneously narrative and decorative.

## Entertainment

## Food

# Product Recommendations



**INTELLIGENCE**

**My past Purchases  
All Basket Purchases**



**Product Features  
Shopper Features**



**Mustard and Co.**  
**Mustard Pen Holder Desktop Organizer - Green Cactus**  
★★★★☆ 5 Customer reviews

**Currently unavailable.**  
We don't know when or if this item will be back in stock.

- Poly resin pen holder desktop organizer with magnetic Branches
- Measures 2.75 x 4.55 x 4.92 inches
- Novelty cactus styled desk organizer that holds pens, pencils and rulers.
- The cactus Branches can also be used for storage either by hanging your elastic bands from the

By making use of the magnetic core you can also keep your paperclips handy tool  
• This is not a Toy.

Roll over image to zoom in

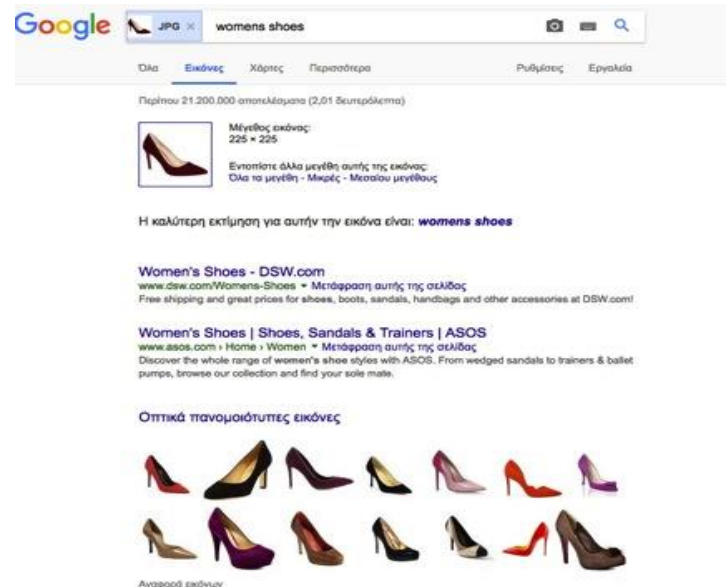
**Customers who viewed this item also viewed**

 <b>LED Cactus Light, 1/8Mia</b> Cute Night Table Lamp Light for Kids' Room, Bedroom, Gift, Party... ★★★★★: 34 \$10.99 - Prime	 <b>Ornery Decorative Cactus</b> Candles Tea Light Candles 6 Pcs ★★★★★: 29 \$7.99 - Prime Nonstandard Shape) Candles	 <b>Cactus Pen</b> ★★★★★: 4 \$9.99 - Prime	 <b>Mustard Pen Holder Pot -</b> Green Seriously Tropical (P1155134) ★★★★★: 12 \$9.90	 <b>Cactus print, wall art,</b> inspirational quote, wall decor, minimalist poster, office decor. ★★★★★: 12 \$5.99
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# Visual Recommendations / Search



Input Image





## ML application areas

- Data Security
- Private security
- Financial trading
- Health care



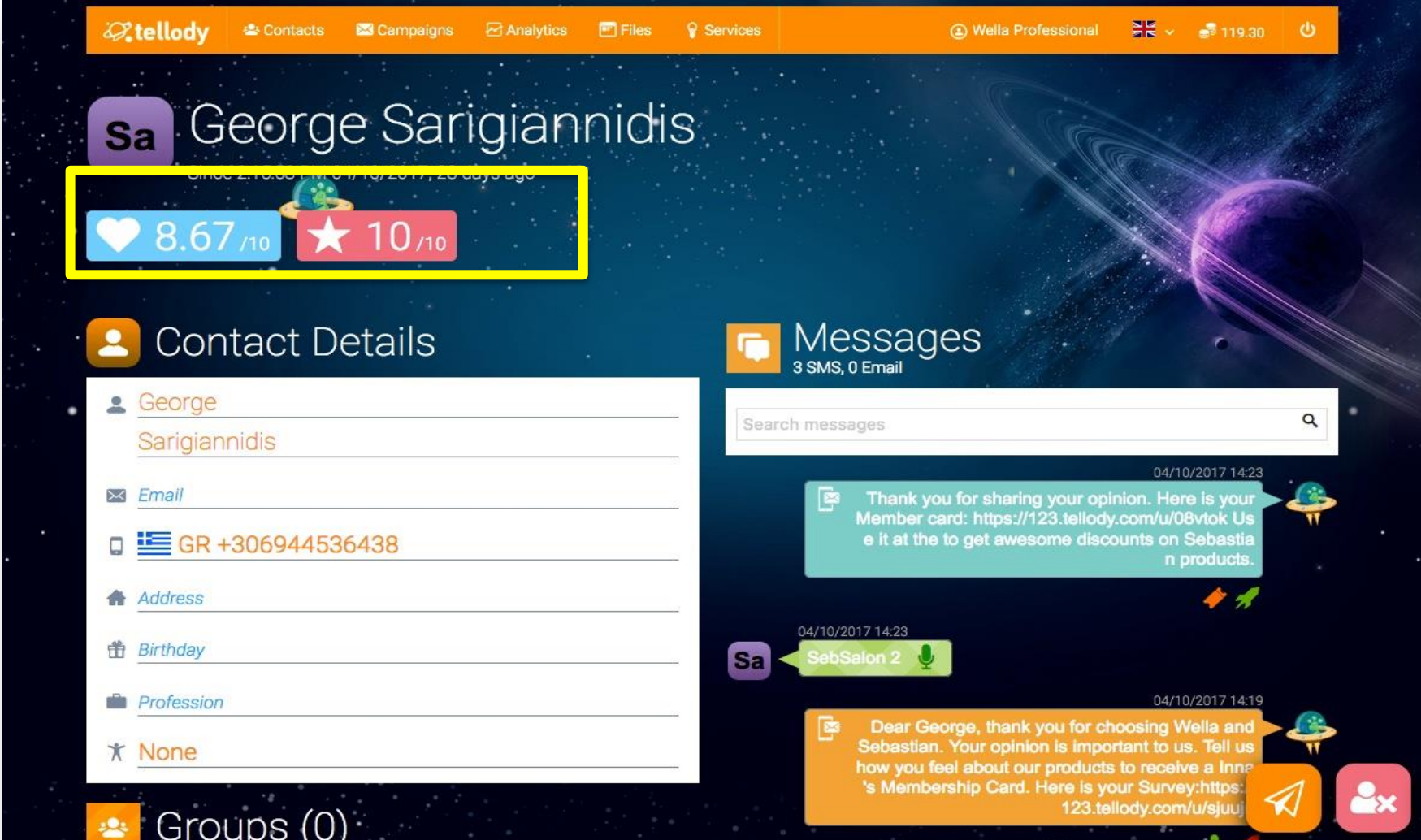
- Marketing Personalization
- Fraud Detection
- Recommendation
- Online Search
- NLP
- Smart Cars



# Tellody ML Features 1



# Tellody ML Features 2



**tellody** | Contacts | Campaigns | Analytics | Files | Services | Wella Professional | UK | 119.30

## Sa George Sarigiannidis

Since 21/03/2017, 10/20/17, 20 days ago

**8.67 /10** **10 /10**

### Contact Details

- George Sarigiannidis
- Email
- GR +306944536438
- Address
- Birthday
- Profession
- None

### Messages

3 SMS, 0 Email

Search messages

04/10/2017 14:23  
Thank you for sharing your opinion. Here is your Member card: <https://123.tellody.com/u/08vtok> Use it at the to get awesome discounts on Sebastian products.

04/10/2017 14:23  
Sa SebSalon 2

04/10/2017 14:19  
Dear George, thank you for choosing Wella and Sebastian. Your opinion is important to us. Tell us how you feel about our products to receive a Inn's Membership Card. Here is your Survey:<https://123.tellody.com/u/sjuuj>

### Groups (0)

# Tellody ML Features 3

## Responses

### Question 1 - Required

#### Suggestions

Please write a few words on how we can improve (1 Participant)

12/29/2016 11:27 From Sou Δημήτρης

So

Your products are good, but I am irked by the fact that you allow people to walk in and out of the store while smoking! And, no, sending them out when I complain is not enough!



## Survey Detailed Report

Search for completed survey



Contact	Message Title	Completed on	View
Δημήτρης Sou	Γνώμη πελατών (Ελεύθερο κείμενο)	12/29/2016 11:27	



## What is next?

### DeepMath –

**Theorem Proving?**



### DeepMarketing–

**Automatic message  
creation & Communication?**



### DeepContent –

- **Write a Novel?**
- **Create a Video?**



