

Machine
Learning
deployment
at

**kupujem[®]
prodajem**

-showcase-

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Serbian (classifieds) market



- Pop: **7,2 mil**
- Internet pop: **4,18 mil**
- Of which **17,7%** mobile only
- Domestic players:
KupujemProdajem,
Infostud, AS-Ringier,
Halooglasi

Small yet competitive

About KupujemProdajem

Izlogujte se | Početna | Najnoviji | Pretraži detaljno | Promocije oglasa | Baner reklama | KP Pregled 2016 | kp izlog f | 8+ | in

**kupujem®
prodajem**

Samo do 22. marta  **29% popusta** **dormeo** **kp**

39.718 novih oglasa juče

Postavi oglas ▶

Pretraži naslov tekst oglasa Ranije pretrage ▼ Poništi Pretraži detaljno

Ključne reči ili ID oglasa (npr. #382719) **Traži ▶** **Pratim (2)**

Kategorija ▼ Mesto/Grad ▼ Cena/Zamena ▼ **Traži ▶**

Stvari (1.335.072) **Usluge (2.880)** **kp izlozi (616)**

kp preporučuje (5)

Total TV	(Popust 7.747din)	
TRIO paketi	(Popust od 19.728din)	
DUO-NET paketi	(Popust od 14.490din)	
D3i - TV preko Interneta	(Popust 2.970din)	
Total NET ADSL 20Mb/s	(Popust 7.156din)	
Audi A4 2.5tdi 120kw	(3.950,00 €)	
Mercedes sprinter 211	(Dogovor)	
Peugeot 205 1.7	(3.000 din)	
BMW 530 E39	(4.400,00 €)	
Gumene patosnice MAN F90,...	(5.900 din)	
auto gume 185/70/14	(500 din)	
Original stopke za BMW	(1.200 din)	
servo pumpa za vektrua	(20,00 €)	
Original stopke za BMW E ...	(30,00 €)	
Alu Felne 18 4x100	(300,00 €)	
Sony cdp-XA20es sampanj	(165,00 €)	
CCA-421S-5M 3.5mm stereo ...	(187 din)	
Vintage SANSUI ES - 203 ...	(35,00 €)	
Yamaha RX-V640 6.1 A/V sa...	(130,00 €)	
Bang & Olufsen BEOVOX CX ...	(2.000 din)	
kup	sred	prod
123,57	123,95	124,32

#1 general classifieds in Serbia

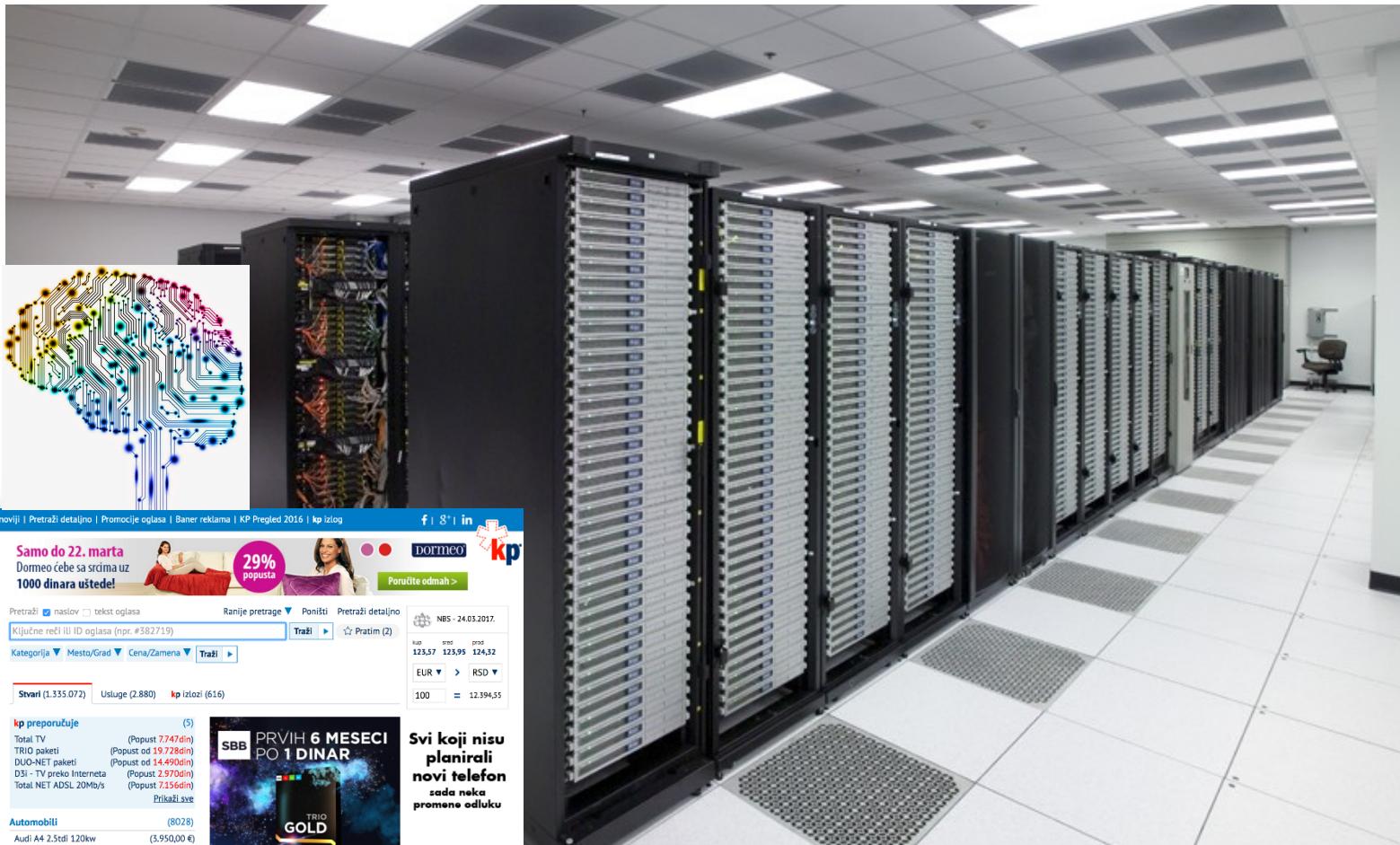
40.000 new ads per day

14 million visits per month

200 million pageviews

160 mil EUR in trade

What is Machine Learning?



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**kupujem®
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Why is it interesting for us?

40.000 new ads per day - 10% misclassified

AGAINST RULES

Img	Name	User	Prijavio / Razlog	Date
	Tele 21god	markofolije@outlook.com Marko Edit user	dobrica dobicacasavic66@gmail.com (ID: 653492) [edit user] IP: 37.220.74.85 Zbog... <i>prodaje tele od 21 godinu to je covek kao sto se vidi na slikama</i>	26.01.2015. 20:42h
	Dymatiz Iso 100 2,27kg	suplementizasve@gmail.com Suplementi.. Edit user	IP: 37.19.108.23 Zbog... <i>prodavac nepostavlja pravila o oglasavanju.ovaj oglas je postavljen pre 3 dana a takav isti i juce.znaci da duplira oglas.</i>	26.01.2015. 19:28h
	Iznajmljujem Ps3 super slim	jovanovicvesna04@gmail.com Vesna Jovanovic Edit user	DJERA74 --- GameBox Nis dejandjeric23@yahoo.com (ID: 387548) [edit user] IP: 109.121.33.170 Zbog... <i>POGRESNA GRUPA ..</i>	26.01.2015. 19:22h

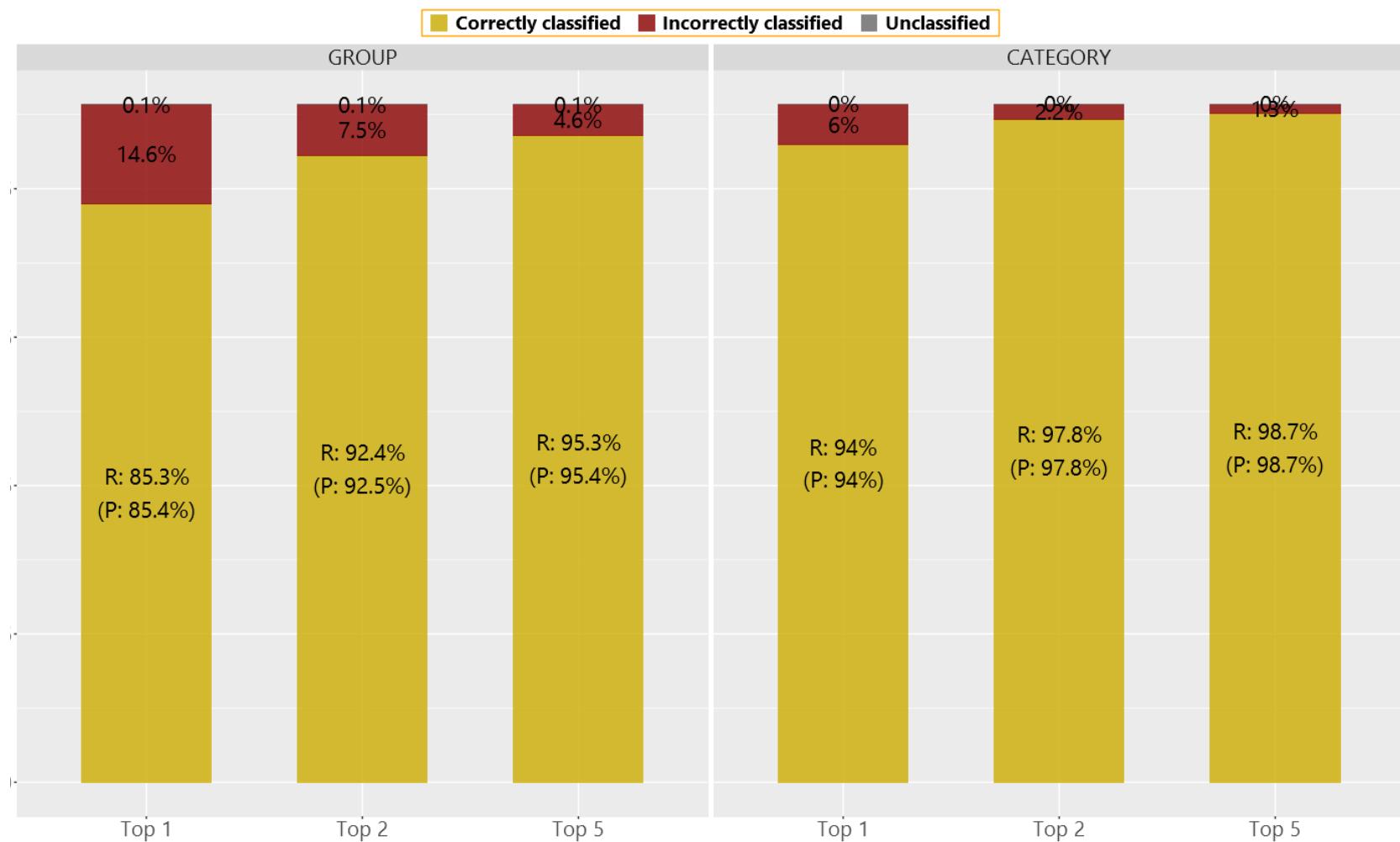
Business case specifics (for our market)

- Relatively low labor costs
- Less revenues than in the bigger markets
- Value of improved quality difficult to define

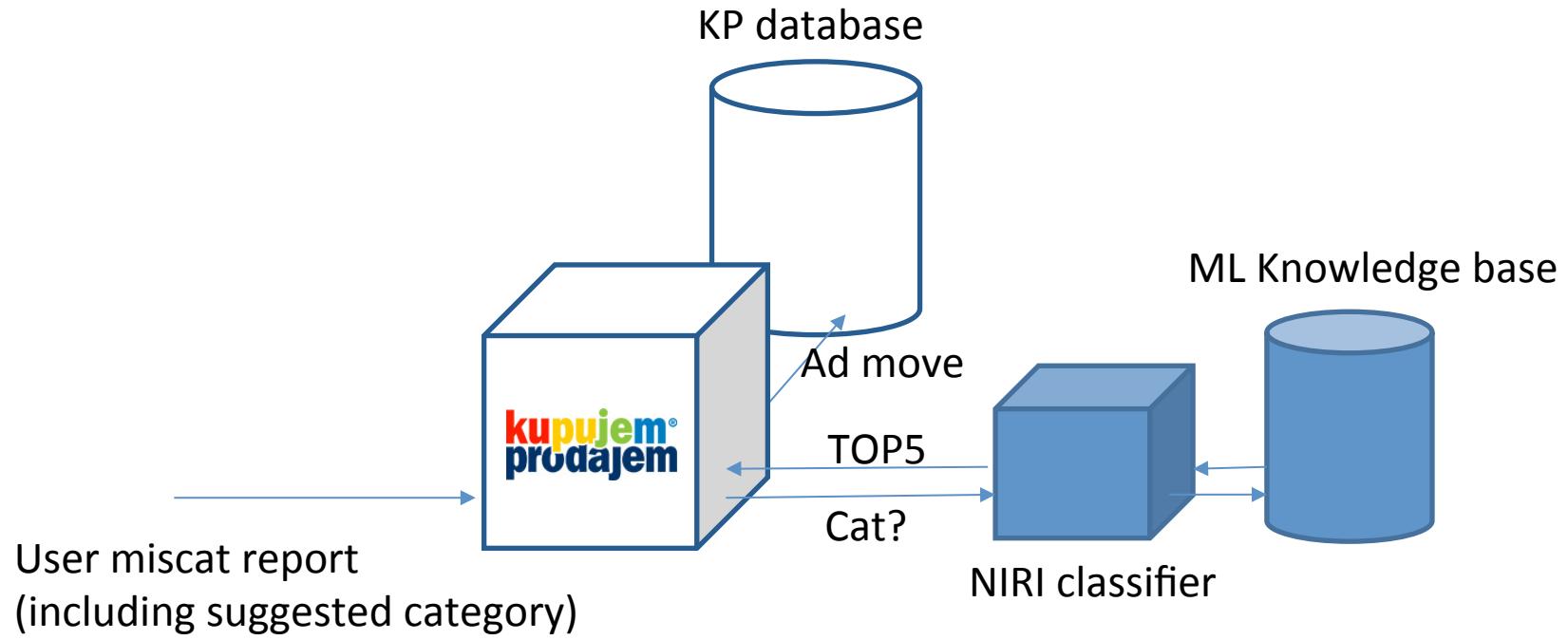
Possible areas of deployment

- Ads (re)classification (based on text and foto's)
- Misuse detection
- Information extraction (geo location, brand, condition, quantity, ...)

The pilot results (based on 22 million ads)



ML Solution architecture



Results and conclusions

- 50% immediate reduction in moderation efforts
- Step by step introduction in order to verify
- Consulting support of the ML partner precious
- ML promising for both quality increase as well moderation time reduction.

Invitation for cooperation

- Looking for partners to share ML knowledge and expertise
- Feel free to contact me on LinkedIn
(www.linkedin.com/in/bojanlekovic)
- THANK YOU!