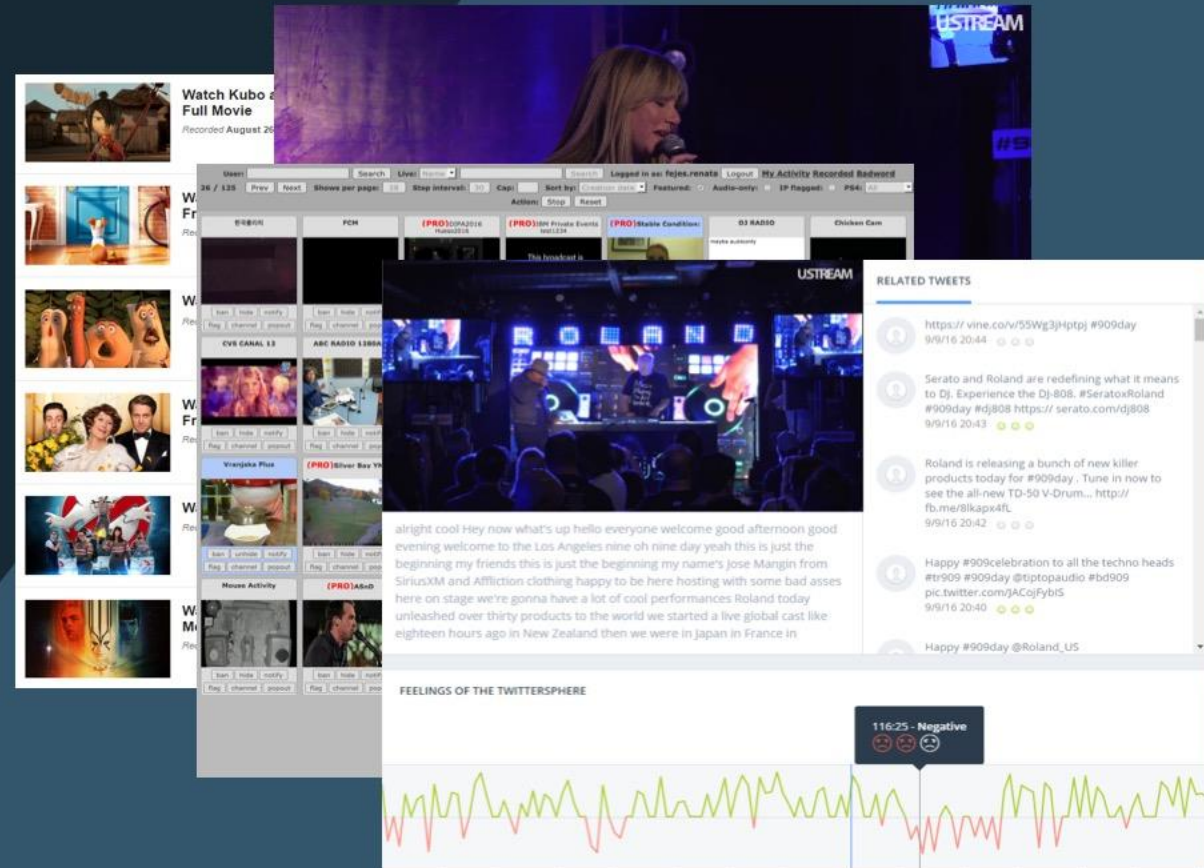


Cognitive video analytics use-cases

Real-world use-cases from Ustream and IBM



Data **@USTREAM**

START UP UNDERSTANDING EVENTING COGNITIVE

Initial operational reporting, definitions,
glossary, and basic data warehousing

START UP

UNDERSTANDING

EVENTING

COGNITIVE

IBM Business Analytics Tools



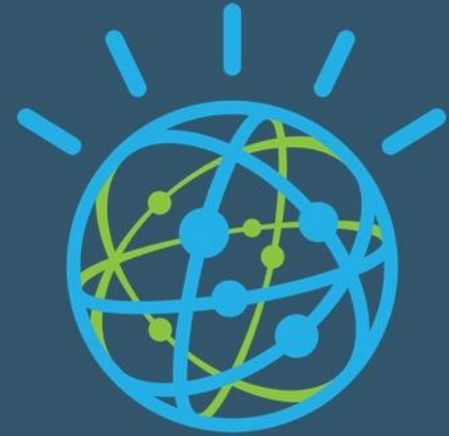
Data Engineer

Bluemix Data Connect



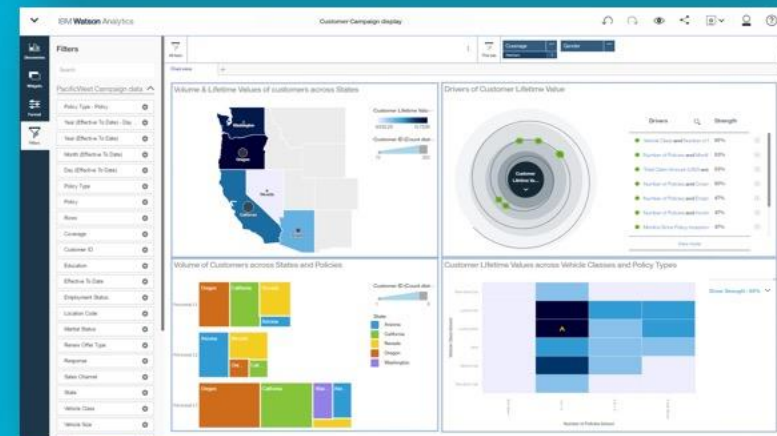
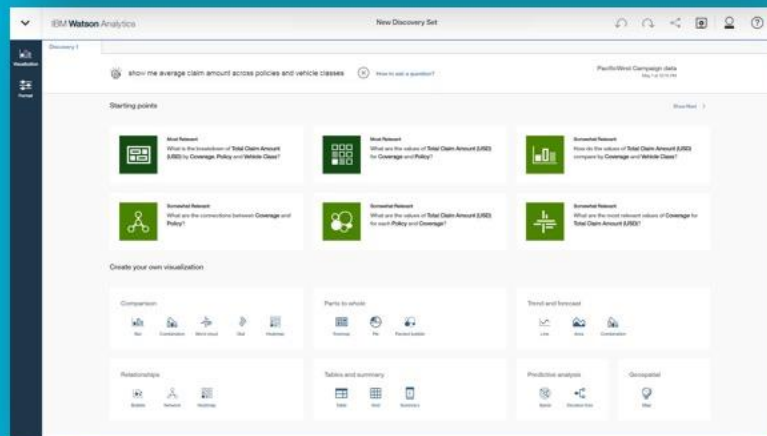
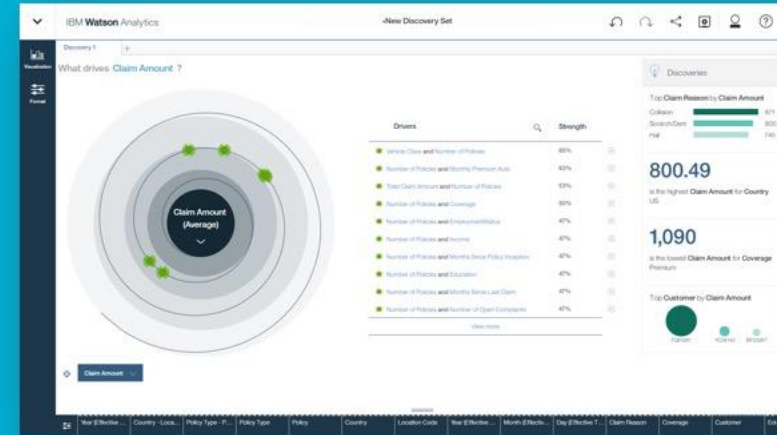
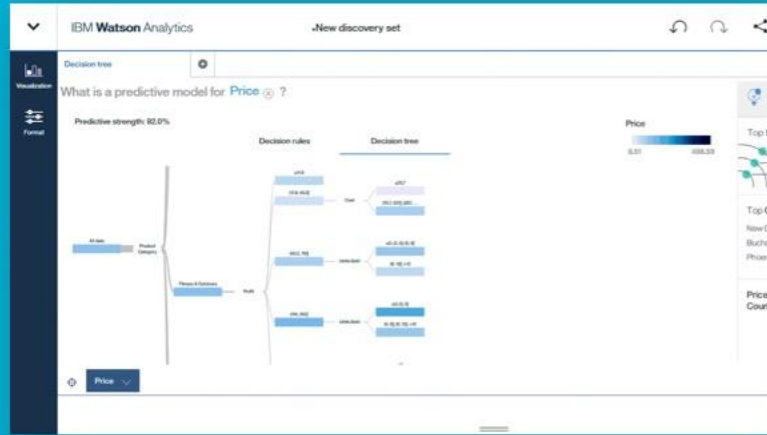
Business Analyst

Cognos Analytics



Business Professional

Watson Analytics



START UP UNDERSTANDING EVENTING COGNITIVE

Deep analyses searching for the „whys”. Building self-serve analytics over the data warehouse, alerting, automatization

START UP

UNDERSTANDING

EVENTING

COGNITIVE

Central logging solution over Hadoop,
Evangelization on organizational level

START UP UNDERSTANDING **EVENTING** COGNITIVE

Adding cognitive analytics to products
and systems using new forms of data

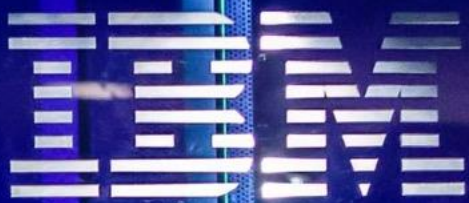
START UP UNDERSTANDING EVENTING **COGNITIVE**

Cognitive systems can
understand, reason, learn
and **interact** naturally, as
any human would.

It's an area of systems you **don't program**; they understand, reason and learn through **hypotheses** and **confidence** level.



WATSON



PIENSE

ΣΚΕΨΟΥ

DENKE

PENSER



\$200

\$4,000

\$600

Ken

WATSON

BRAD

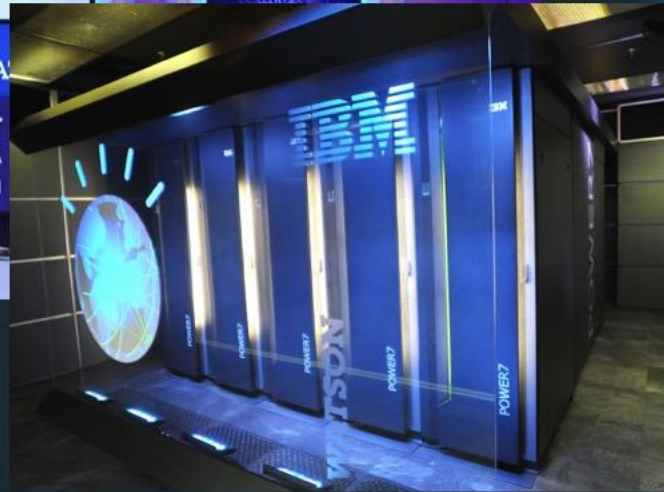
Maxwell's silver hammer
FRANK SINATRA
Brown



Watson Evolution

2011

Q&A, 5 technologies



2016

33 APIs on Bluemix



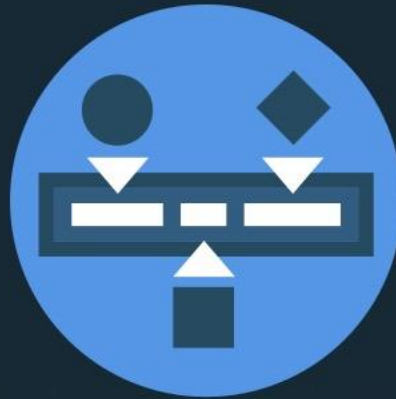
IBM Developer Cloud

33 different APIs on a cloud platform



Vision

Content recognition



Language

Sentiment analysis



Speech

Text files from audio

LEGO
WATSON










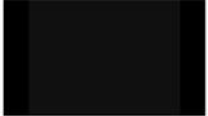


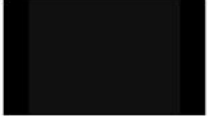


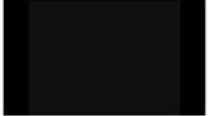




Strength

OUT OF THE BOX SOLUTION

Weakness

OUT OF THE BOX SOLUTION

#1 Spam detection and alerting

 <p>WATCH BLAIR WITCH Mo~vie ON-LINE Free <i>Recorded September 20 at 7:46pm</i></p>	 <p>buy Meridia 15mg USA Pharmacy. fcc6 Credit cards a <i>0 views</i></p>	 <p>Watch Kubo and the Two Strings Online 2016 Full Movie <i>Recorded August 26 at 1:17pm</i></p>
 <p>SUICIDE SQUAD ON-LINE HD-TV F-REE Putloker <i>Recorded September 14 at 9:12pm</i></p>	 <p>buy Cialis 20mg USA Pharmacy. 3gslw9h Learn about <i>0 views</i></p>	 <p>Watch The Secret Life Of Pets Online Full Movie Free <i>Recorded August 23 at 5:16pm</i></p>
 <p>Sully ON-LINE HD-TV F-REE ST-REAM TORENT <i>Recorded September 13 at 9:45pm</i></p>	 <p>buy Reductil cheap. z58z Online Pharmacy for presc <i>0 views</i></p>	 <p>Watch Sausage Party Online 2016 Free Movie <i>Recorded August 12 at 4:58pm</i></p>
 <p>BAD MOMS ON-LINE HD-TV F-REE Putloker <i>Recorded September 16 at 7:43pm</i></p>	 <p>buy Acetaminophen (Codeine) FDA Approved Pharmacy. <i>0 views</i></p>	 <p>Watch Florence Foster Jenkins Online 2016 Free Movie <i>Recorded August 12 at 4:28pm</i></p>
 <p>WATCH BAD MOMS Movie ON-LINE Free <i>Recorded September 16 at 7:27pm</i></p>	 <p>buy Cialis 20mg Online USA Pharmacy. nd7s8 Discoun <i>0 views</i></p>	 <p>Watch Ghostbusters Online 2016 Free Movie <i>Recorded August 12 at 3:55pm</i></p>
 <p>WHEN THE BOUGH BREAKS ON-LINE HD-TV F-REE Putloker <i>Recorded September 13 at 9:18pm</i></p>	 <p>buy Codeine FDA Approved Pharmacy. q7xix The drug <i>0 views</i></p>	 <p>Watch Star Trek Beyond Online 2016 Free Movie <i>Recorded August 12 at 3:42pm</i></p>
 <p>DON'T BREATHE ON-LINE HD-TV F-REE Putloker <i>Recorded September 14 at 8:30pm</i></p>	 <p>buy Codeine FDA Approved Pharmacy. c508 High quali <i>0 views</i></p>	

Sign up for your 30-day free trial

Ready to buy? [See our plans and pricing](#)

First name

Yvette

Last name

Akron

Email

mari.afrol.ov.a.3.3@gmail.com

Password

.....

Password should be at least 5 characters and should contain at least one lowercase letter, one uppercase letter and one number.

Phone number

Company name

Sign up

By signing up, you agree to the [Terms of Service](#) and [Privacy Policy](#).

Your free trial includes:

- Ad-free viewing to 5 concurrent viewers
- Live HD Broadcasting
- 500 GB storage for recorded and uploaded

You are in good hands!

- ✓ Ustream is the largest live video platform on the Internet
- ✓ We regularly stream events with over 10 million viewers
- ✓ Your data is stored on secure servers

Log in to Ustream



Log in with Facebook

Instant login, no passwords

mari.afrol.ov.a.3.3@gmail.com

.....

Log in

☒ Remember me | [Forgot your password?](#)

Don't have an account? [Sign up](#)

USTREAM
an IBM Company

EXPLORE ▾

PRODUCT ▾

SEARCH

Create a Channel ✕

The best titles are typically 5 or 6 words that describe your broadcast, e.g., "The Joe Rogan Show" or "Explore the deep with Discovery's Shark Cam"

Channel title

Create

ACCOUNT

[Download Ustream Producer \(free\)](#)

[More ways to broadcast on Ustream](#)

Channel Info

Channel name

Buy Atorlip Online, Generic Atorlip Online

Channel URL: <http://www.ustream.tv/channel/jcnpnZK4Vym>

About

Type a few words that people might type when searching for your channel

Category

Entertainment



Subcategory

Blog



Categorize your channel so users can find it

Channel Picture



Edit channel picture

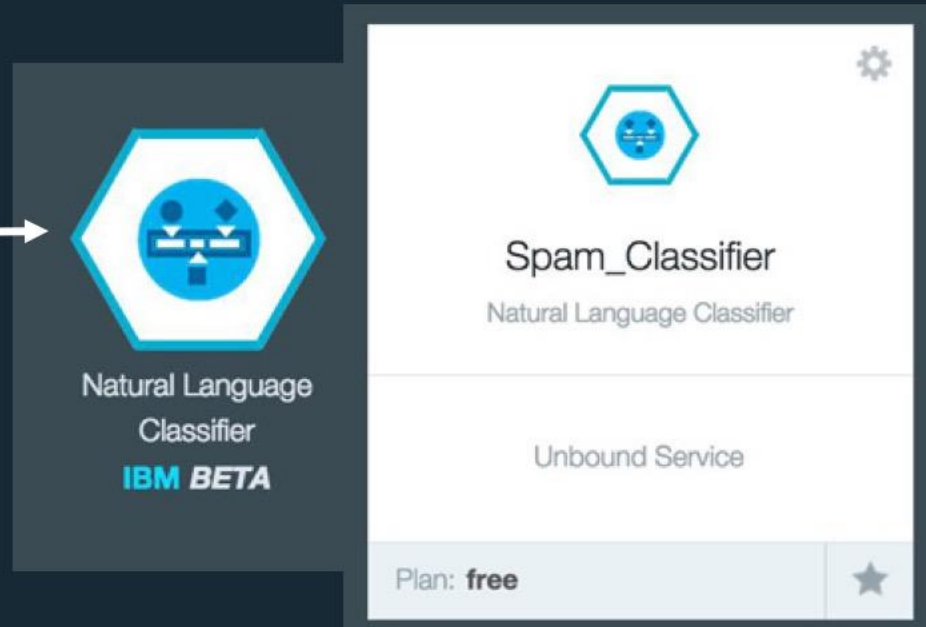
☐

Delete my channel picture

How does it work?



Channel & user
metadata



„download free movies”, spam
„download festival”, ham
„watch star trek free online”, spam
„free trial for online CRM”, ham

Spam
Alerting

Flagging
and filtering

#2 Audience insights for product unveil events



Product unveil event



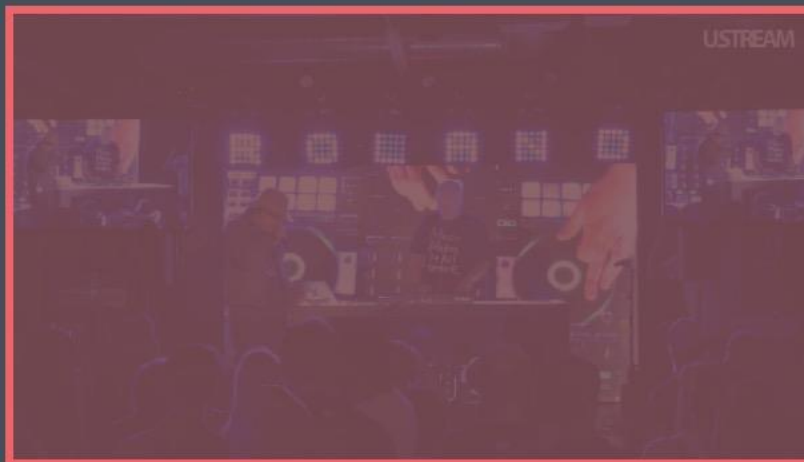
alright cool Hey now what's up hello everyone welcome good afternoon good evening welcome to the Los Angeles nine oh nine day yeah this is just the beginning my friends this is just the beginning my name's Jose Mangin from SiriusXM and Affliction clothing happy to be here hosting with some bad asses here on stage we're gonna have a lot of cool performances Roland today unleashed over thirty products to the world we started a live global cast like eighteen hours ago in New Zealand then we were in Japan in France in

RELATED TWEETS

- <https://vine.co/v/55Wg3jHtpj> #909day 9/9/16 20:44
- Serato and Roland are redefining what it means to DJ. Experience the DJ-808. #SeratoxRoland #909day #dj808 <https://serato.com/dj808> 9/9/16 20:43
- Roland is releasing a bunch of new killer products today for #909day. Tune in now to see the all-new TD-50 V-Drum... <http://fb.me/Blkapx4fL> 9/9/16 20:42
- Happy #909celebration to all the techno heads #tr909 #909day @tiptopaudio #bd909 pic.twitter.com/JAcoJFybl5 9/9/16 20:40
- Happy #909day @Roland_US

FEELINGS OF THE TWITTERSPHERE





alright cool Hey now what's up hello everyone welcome good afternoon good evening welcome to the Los Angeles nine oh nine day yeah this is just the beginning my friends this is just the beginning my name's Jose Mangin from SiriusXM and Affliction clothing happy to be here hosting with some bad asses here on stage we're gonna have a lot of cool performances Roland today unleashed over thirty products to the world we started a live global cast like eighteen hours ago in New Zealand then we were in Japan in France in

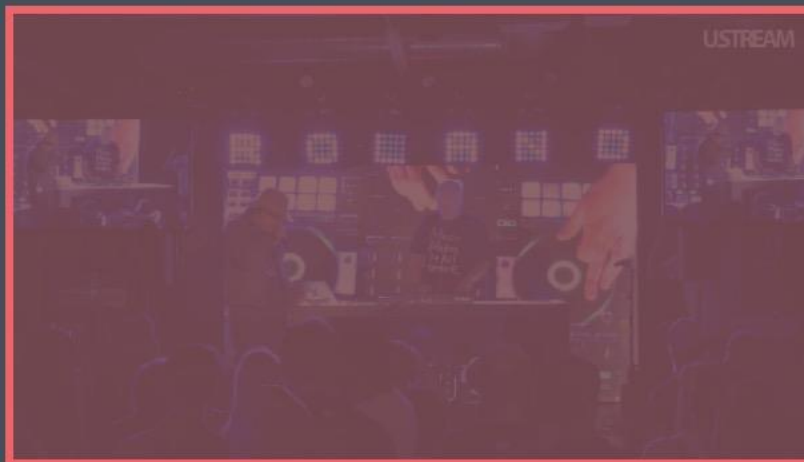
RELATED TWEETS

- [https:// vine.co/w55Wg3Htpj](https://vine.co/w55Wg3Htpj) #909day
9/9/16 20:44
- Serato and Roland are redefining what it means to Dj. Experience the DJ-808. #SeratoxRoland #909day #dj808 [https:// serato.com/dj808](https://serato.com/dj808)
9/9/16 20:43
- Roland is releasing a bunch of new killer products today for #909day . Tune in now to see the all-new TD-50 V-Drum... [http:// fb.me/8lkapx4fL](http://fb.me/8lkapx4fL)
9/9/16 20:42
- Happy #909celebration to all the techno heads #tr909 #909day @tiptopaudio #bd909 pic.twitter.com/9ACoJFybIS
9/9/16 20:40
- Happy #909day @Roland_US

Social
feed

FEELINGS OF THE TWITTERSPHERE





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RELATED TWEETS

<https://vine.co/W55Wg3JHtpj> #909day
9/9/16 20:44

Serato and Roland are redefining what it means to Dj. Experience the Dj-808. #SeratoxRoland #909day #dj808 <https://serato.com/dj808>
9/9/16 20:43

Roland is releasing a bunch of new killer products today for #909day. Tune in now to see the all-new TD-50 V-Drum... <http://fb.me/8lkapx4R>.
9/9/16 20:42

Happy #909celebration to all the techno heads! #t909 #909day @tiptopaudio #bd909 pic.twitter.com/9ACoFybIS
9/9/16 20:40

Happy #909day @Roland_us

FEELINGS OF THE TWITTERSPHERE



Speech to text



Sentiment analysis



Applications we tested

3 main tools for sentiment analysis



Natural language
toolkit



Microsoft Azure

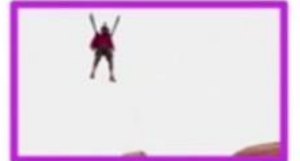


Watson Alchemy
Language



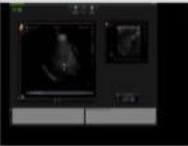
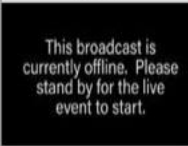



















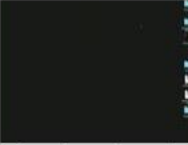




Azure had much more positive results, while NLTK and Watson had similar points on an average.















Watson is a lot more sensitive for trigger words, while NLTK is much closer to being neutral.


#3 Video recognition and scene detection



#Mountain
#Person
#Blue
#Portrait

한국롤리치  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	FCM  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)DIPA2016 Hueso2016  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)IBM Private Events test1234  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)Stable Condition:  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	DJ RADIO maybe audiconly  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Chicken Cam  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>
CVS CANAL 12  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	ABC RADIO 1280AM  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	RTV CANAL36  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Start Skydiving -  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Телеканал "6ТВ"  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Untouchmovie German /  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)OysterParkWF10w  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>
Vranjska Plus  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)Silver Bay YMCA  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)LeaValleyEN3webs  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Vermont Law School  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)Social Business  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Highlander Auditorium  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)(F)Rosie  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>
Mouse Activity  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)ASnD  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	LiveShell  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Zoned Out Dot Net  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)UK Labs TV -  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)UVM Video  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	irinonooka OKA2016  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="flag"/> <input type="button" value="channel"/> <input type="button" value="popout"/>

(PRO)(T)vb4bbqs903y's pickles2  <input type="button" value="password"/> <input type="button" value="protected"/> <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Locomotion  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)(T)LODB  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)(T)...  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>
(PRO)(T)Seminário de  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	ujwgqgayxw4  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	みっしえ 98120017  <input type="button" value="password"/> <input type="button" value="protected"/> <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	Music Box WebTV  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>
soramaruTV  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)(T)Dont_Follow_T  <input type="button" value="ban"/> <input type="button" value="hide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	(PRO)(T)WWSOPA  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>	コロン犬  <input type="button" value="ban"/> <input type="button" value="unhide"/> <input type="button" value="notify"/> <input type="button" value="unflag"/> <input type="button" value="reload"/> <input type="button" value="channel"/> <input type="button" value="popout"/>
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 **Classifier** BOT 15:22

Smoke,Dish_Washer,Team_Sport,Cow,Washer_and_Dryer,Sports_Field,Kitchen_Sink,
_Whale,Nature_Scene,Beach,Croquet,High_Jump,Sky_Scene,Greenhouse,2457000,1
655245,0.634121,0.619052,0.618421,0.61259,0.608913,0.599221,0.597543,0.5958
0.554209,0.538912,0.517714



ajnasz 15:22

jo lett

:)



sgergely 15:31


most nezem mi tortenik itt. ez nagyon kiraly



Moriarty BOT 15:55

channel.status.live: 13407086

"Risky" Contents





an IBM Company

DESKTOP BROADCASTER

DASHBOARD

HELP





HF

CONNECTICUT

THE 2011 CHAMPIONSHIP

ESPN

UConn 74 PITTSBURGH 74 2nd 26

hackathon test channel

Stop Broadcast

Start Record

Quality

Volume

basketball: 14.49

eagle: 11.73 bear: 5.03 soccer: 1.10

Video

Audio



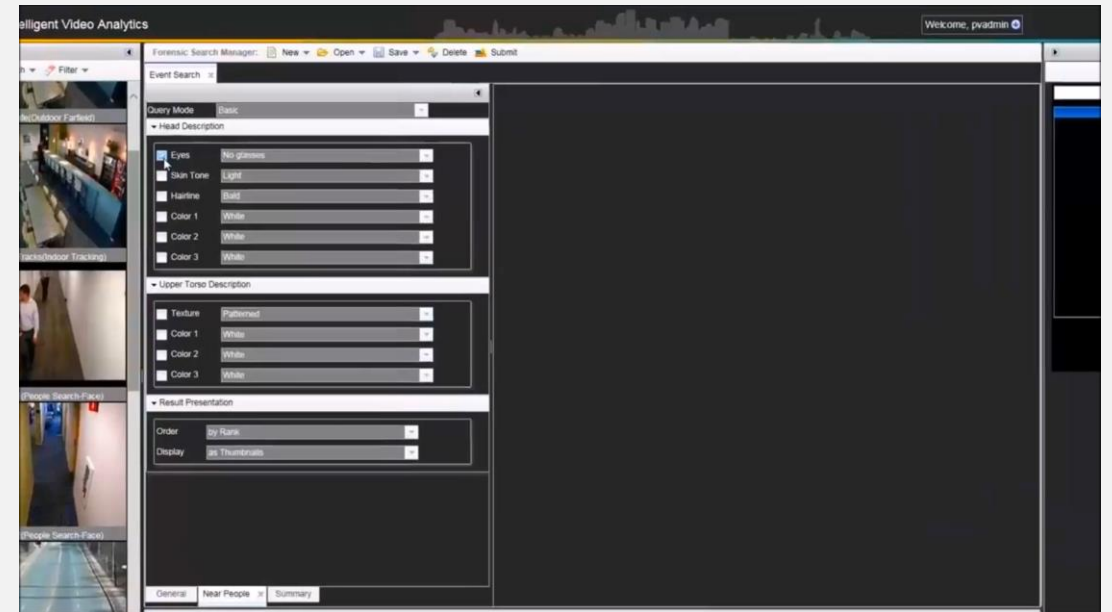
Cognitive video
APPLICATIONS from
TRM

Video analytics for law enforcement cameras



Body-worn

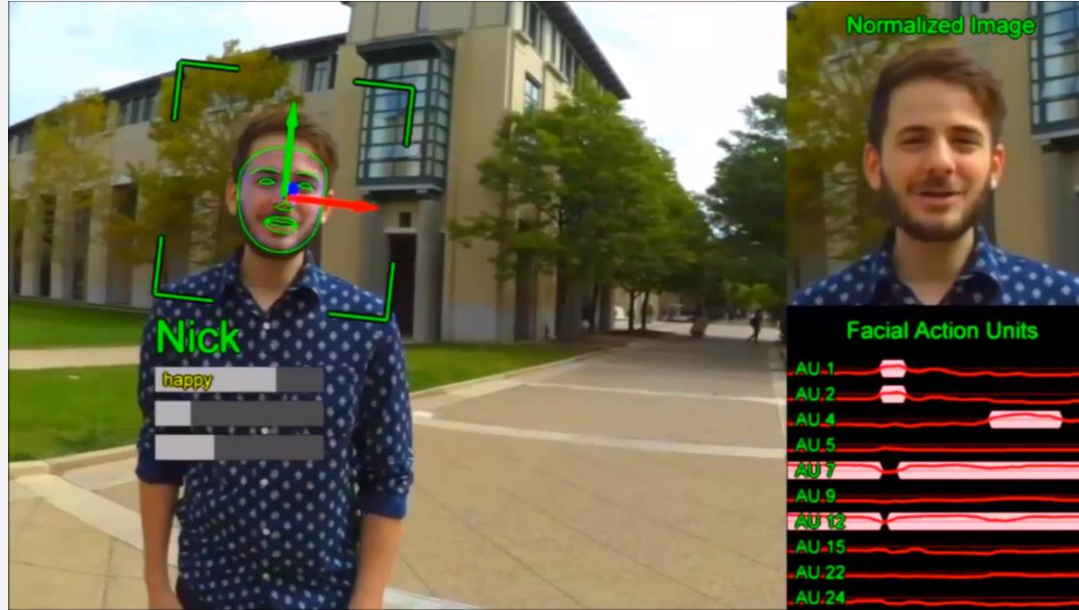
Greater transparency



Stationary

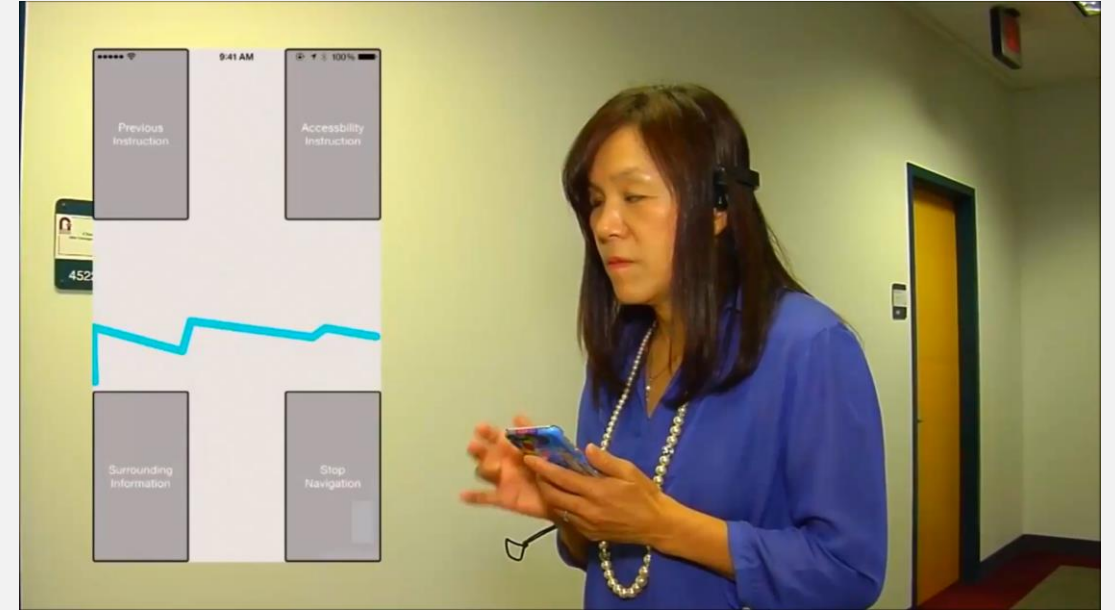
Search for suspect

Smartphone guide to the blind



Face recognition

Recognizing
people & emotion



Navigation

Which door / route to
take

What do you need to become cognitive?

3 critical success factors



Platform

Actions based on
insights



New forms of data

Audio & video,
social data



Smart ecosystem

To put cognition into
your applications

That's it!

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