



Humanizing Technologies (what is this?)

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05.06.2014

The meaning ...



1. Humanizing technologies

- technologies that humanize (their users)

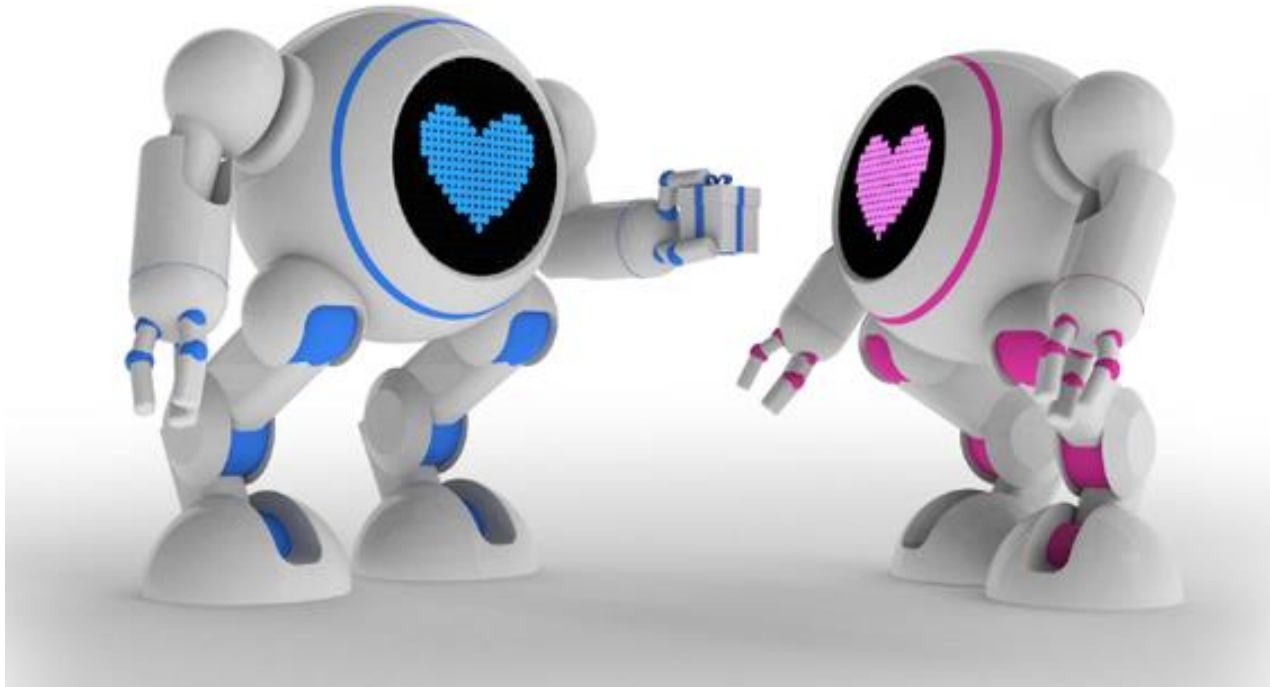
2. Humanizing technologies

- technologies that are human (close to the human)

3. Humanizing technologies

- technologies that enable human to better use ICT

human-centric technology



Big Think is excited to announce *Humanizing Technology*, a virtual expo in partnership with Bing, whose goal is to identify new technologies that integrate themselves seamlessly into our lives, capitalize on our unique strengths, and amplify the best of human nature.

in 2012

The start



Macworld Expo 1997

Steve Jobs:

you've got to start with the customer experience and work
backwards to the technology

What incredible benefits can we give to the customer? Where can
we take the customer?'

In 1997

No Google

No Semantic Web

No Facebook

No Flash

No HTML5

No Siri

No Sentiment Analysis

No Speech Recognition

No Bing

No Mobile

No Smart Phone

Steve Jobs legacy for 100 years in the future

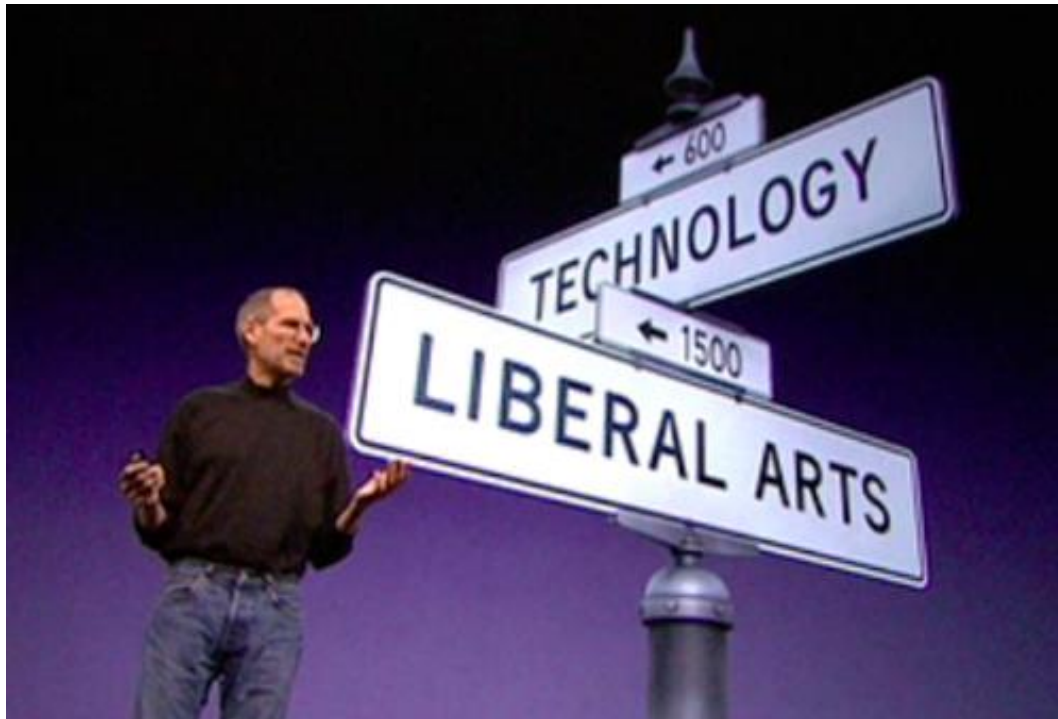


Photo credit: Apple Inc.

"The reason Apple is able to create products like the iPad is because we've always tried to be at the intersection of technology and liberal arts."

Steve Jobs

Steve Jobs's most important contribution will be that he made technology about people and not about technology.

Humanizing Technologies, Inc.

[Solutions](#)[About Us](#)[Contact](#)[Support](#)

Information
made relevant.



Enterprise Solutions

Cavo Knowledge Search™

An innovative Enterprise Search Solution

Flexible Portals

Flexibility • Low Maintenance • Web 2.0
Custom Content Presentation • No Developers
Needed

Discovery Search

Find Conceptually Similar Documents • Create
Taxonomies On The Fly • Automatic
Summaries • Concept Search Without Human
Intervention That Scales • Boolean Keyword
Search

[See All Solutions »](#)

Providing Global Solutions For:

- Enterprise
- Law Firms
- Universities
- Email Search
- Technical Training
- Application Developers
- CRM & ERP Systems
- Business Intelligence
- Corporate Portals
- Data Storage
- Value-Added Resellers
- System Integrators
- Mobile Operators
- Network Service Providers
- Financial Services
- Hosting Companies
- Content Owners
- Publishing & Media

total control of the display of user's content

- Flexible portals
- Discovery search

Indiana based company

Since 2000

Now



How technology works ...



The phrase “**humanizing emerging technologies**” is about reducing the amount of mystery around how a technology works and about helping people retain a sense of control over their changing environments.

<http://radar.oreilly.com/2014/04/humanizing-emerging-technologies.html>

Natural Interfaces



- Gesture control

<https://www.youtube.com/watch?v=91aDt0UHcUo>

- Wearables

- Google Glass



- Samsung watch



- Voice biometrics



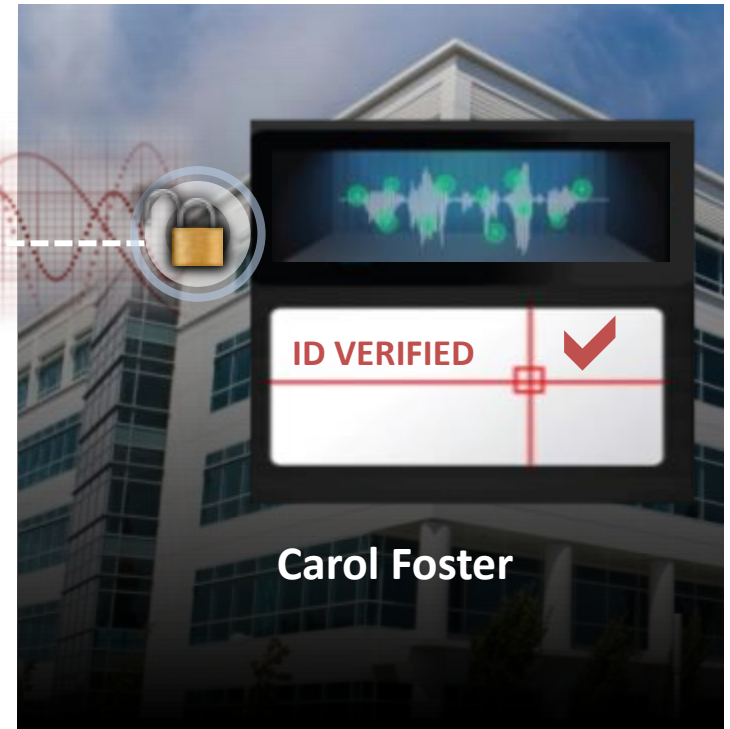
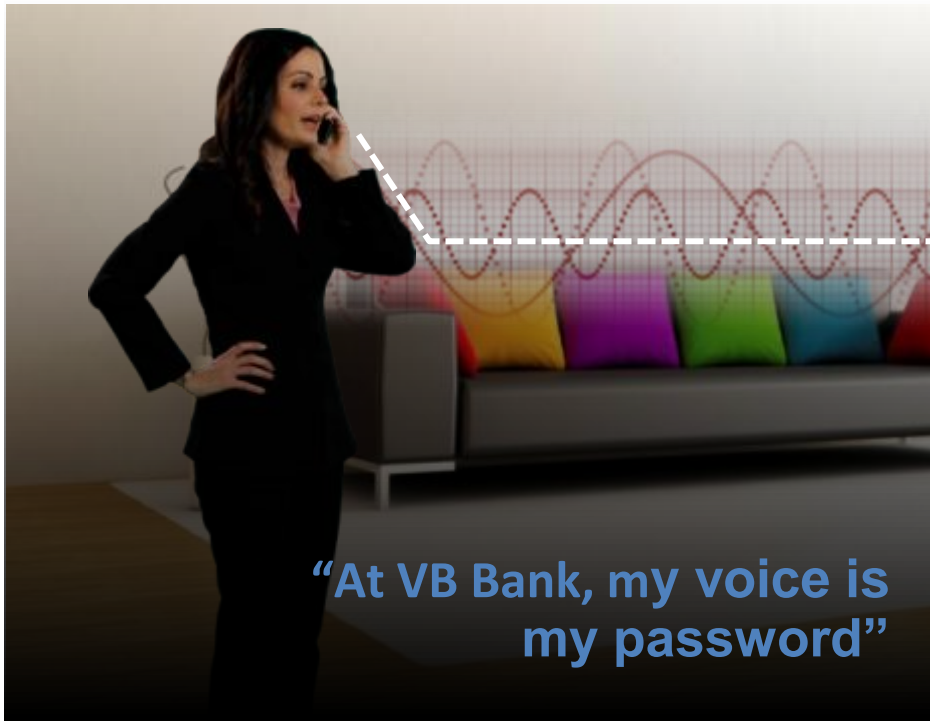
- Voice control
 - Dialogue



<https://www.youtube.com/watch?v=MpjpVAB06O4>

Nuance Voice Biometrics

IVR Authentication Use Case



Virtual Personal Assistant



2010 Denise

- <https://www.youtube.com/watch?v=7W52TL9Akv4>

2012 Denise

- <https://www.youtube.com/watch?v=LQkpobxbHTY>

2014 Google Now vs. Siri vs. Cortana

- <http://www.cnet.com/how-to/google-now-vs-siri-virtual-assistants-duke-it-out-video/>
- <http://www.cnet.com/news/cortana-vs-siri-vs-google-now/>

Use for search: Google Search, Wolfram Alpha, Bing

Siri uses Nuance for speech recognition

In the future

empathy

insight

reliance

trust

actionable knowledge



Intelligent virtual personal assistant market size

The global market for intelligent virtual assistants is expected to reach USD **3,071.9 million by 2020**

The global intelligent virtual assistant market was estimated to be **USD 352.0 million in 2012**, and is expected to grow at a CAGR of **31.7% from 2013 to 2020**

Small and medium enterprises (SME) are expected to witness increasing adoption of intelligent virtual assistants, and grow at a CAGR of **32.2% from 2013 to 2020**

Intelligent Virtual Assistant End-Use Outlook

- Large Enterprises

- Small and Medium Enterprises (SME)

Intelligent Virtual Assistant Regional Outlook

- North America

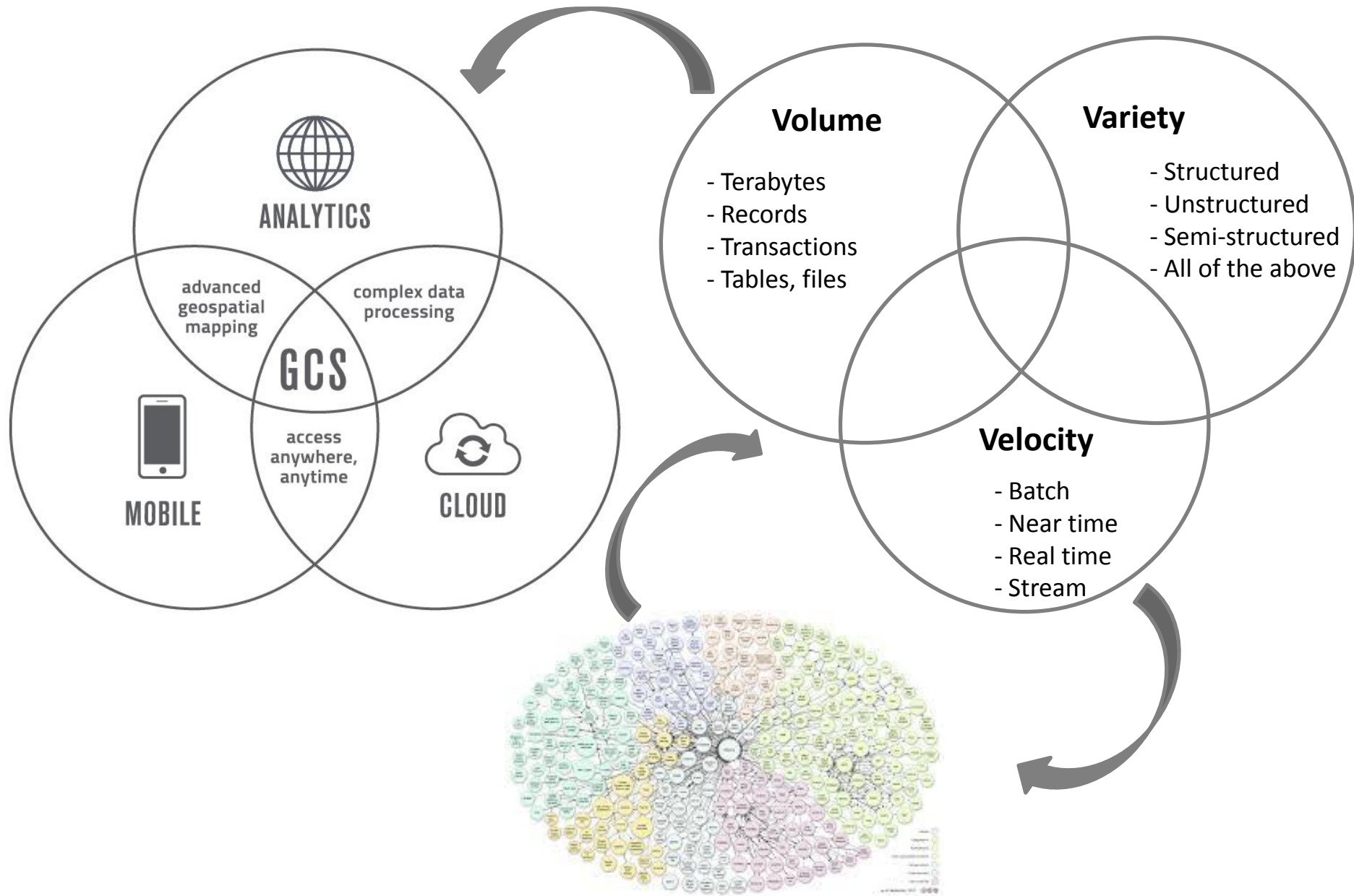
- Europe

- Asia Pacific

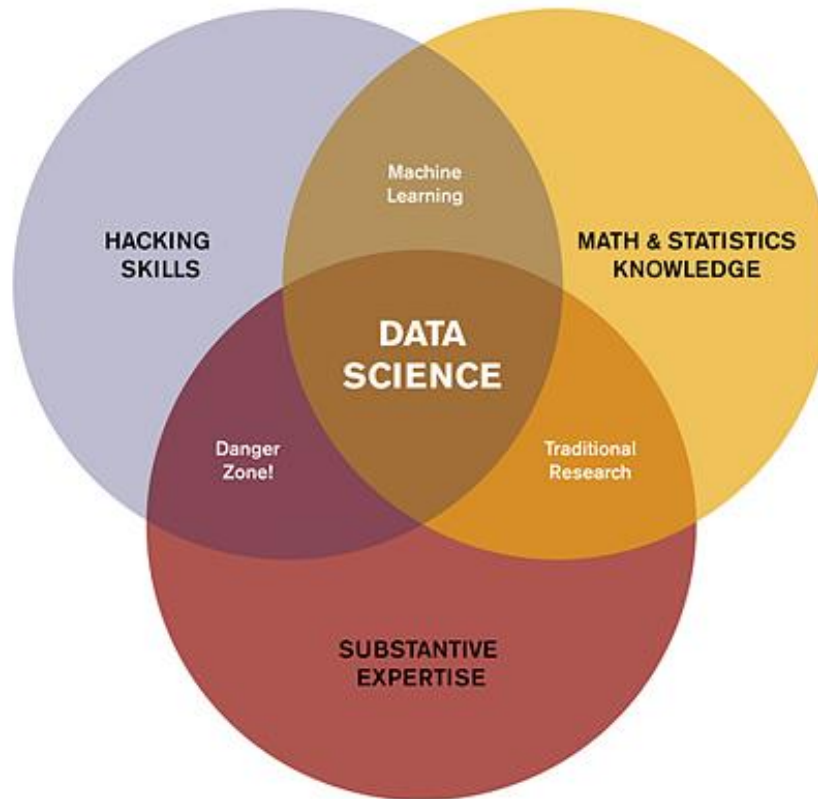
- RoW

Sherry James, Grand View Research,
<http://www.prweb.com/releases/intelligent-Virtual/Assistantmarket/prweb11528735.htm>

Big Data, Linked Data and The Clouds



The Data Science Venn Diagram



Source: https://s3.amazonaws.com/aws.drewconway.com/viz/venn_diagram/data_science.html

Visualization of Big Data Analytics



Data Visualization Is The Future

Dorie Clark, Forbes

<http://www.forbes.com/>

Vizify turns your social media data into interactive infographics, videos, and more.

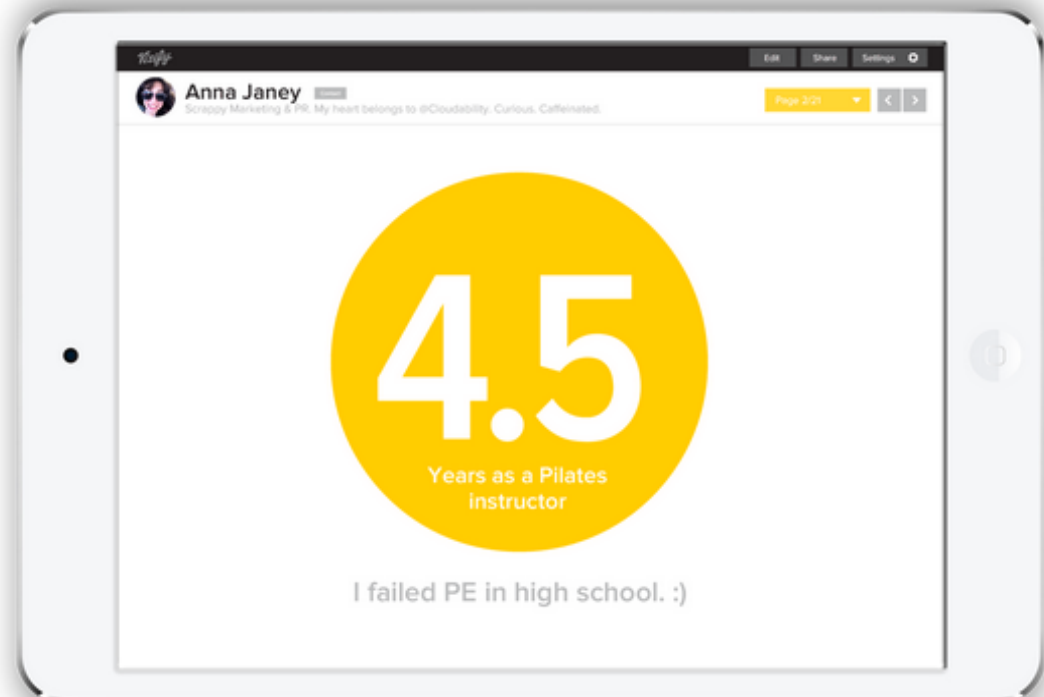
acquired by Yahoo



<https://www.vizify.com/yahoo#what>

Graphical Bios

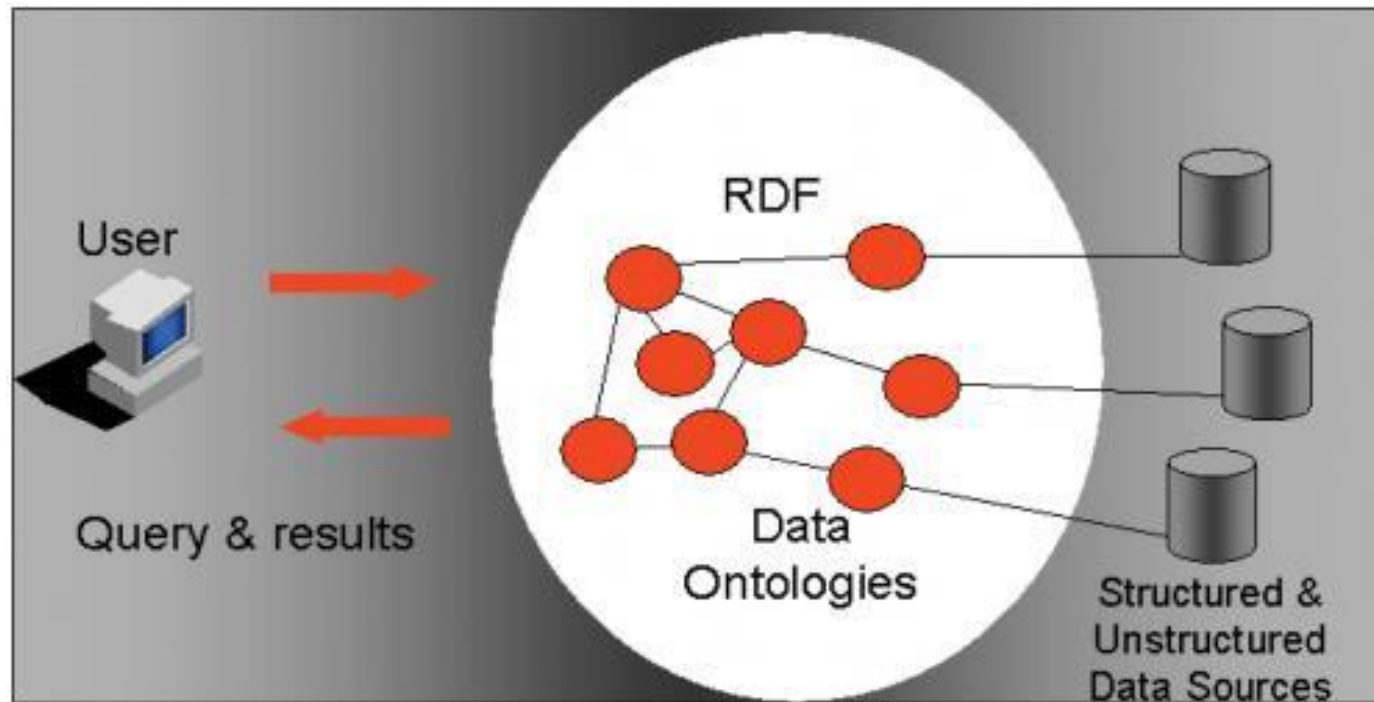
**Many non-technical profes:
comprehend insights from**



Semantic technologies



Perfect foundation for seamless data integration, reasoning and informational infrastructures



Enabling web scale intelligent applications

One of Mozaika's focuses

Big data market size



IDC predicts that the market for big data will reach **\$16.1 billion** in 2014, growing 6 times faster than the overall IT market. IDC includes in this figure Infrastructure (servers, storage, etc., the largest and fastest growing segment at **45%** of the market), services (**29%**) and software (**24%**).

Companies providing **big data analytics services** will fill the gap in the meantime and predicts that the big data professional services market will exceed **\$4.5 billion** in 2014.

Gill Press,

<http://www.forbes.com/sites/gilpress/2013/12/12/16-1-billion-big-data-market-2014-predictions-from-idc-and-iaa/>



Gartner's 2013 Hype Cycle for Emerging Technologies Maps Out Evolving Relationship Between Humans and Machines

Angela Guess, 2013

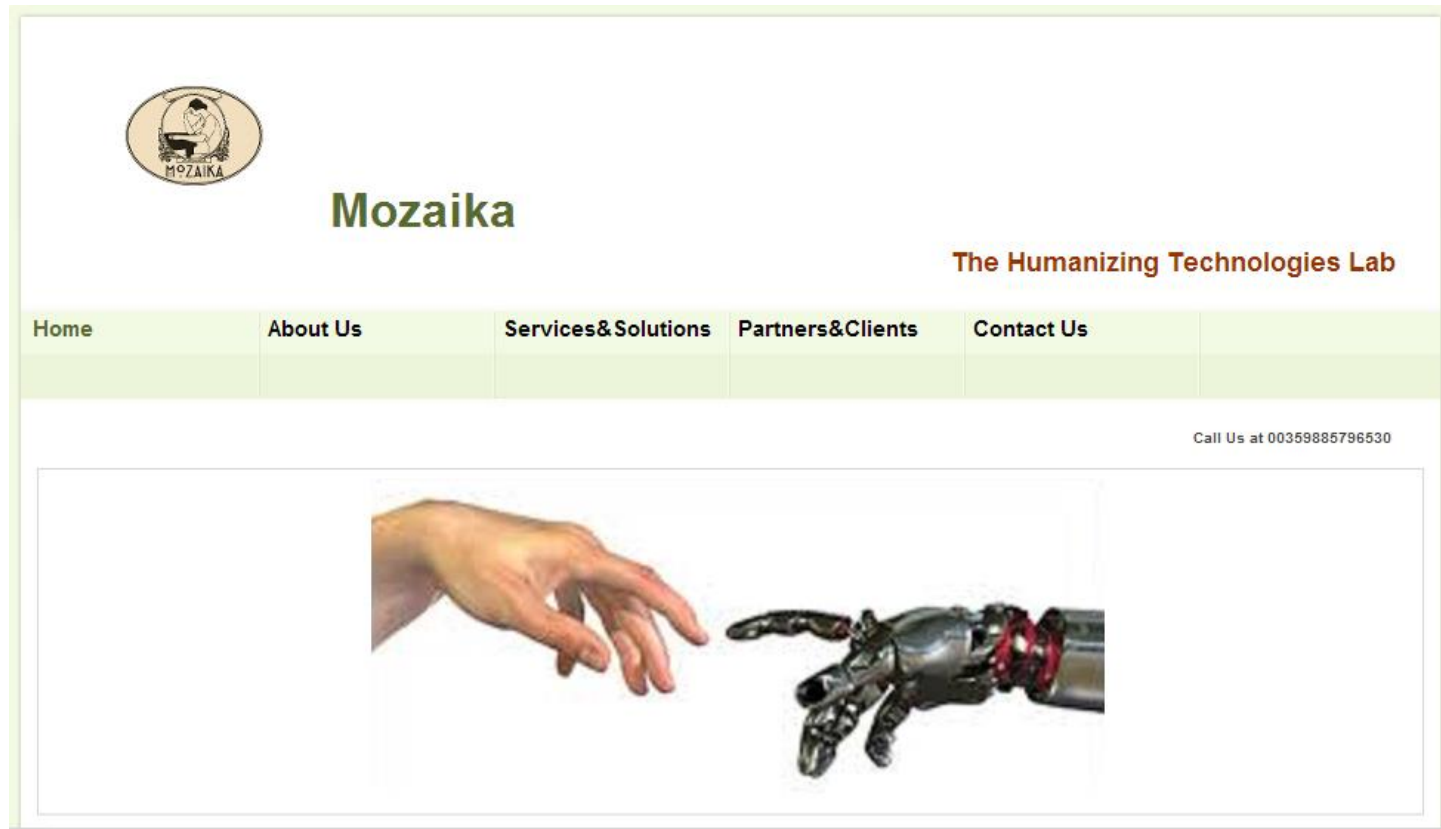


“Enterprises of the future will use a combination of these **three trends to improve productivity, transform citizen and customer experience, and to seek competitive advantage**,” said Hung LeHong, research vice president at Gartner. “These three major trends are made possible by three areas that facilitate and support the relationship between human and machine. **Machines are becoming better at understanding humans and the environment** — for example, recognizing the emotion in a person’s voice — and **humans are becoming better at understanding machines** — for example, through the Internet of things. At the same time, **machines and humans are getting smarter by working together.**”



Better Human Understanding,
not Big data
is the Future of Business.

That is where Mozaika is going



Mozaika is an SME and a Research Center

- semantic data mining, natural language processing, human-computer interaction, data science
- information infrastructures serving variety of applications such as enhancing creativity
- cultural heritage cataloguing, smart cities
- consulting in project development
- etc.

Mozaika's Current projects ...



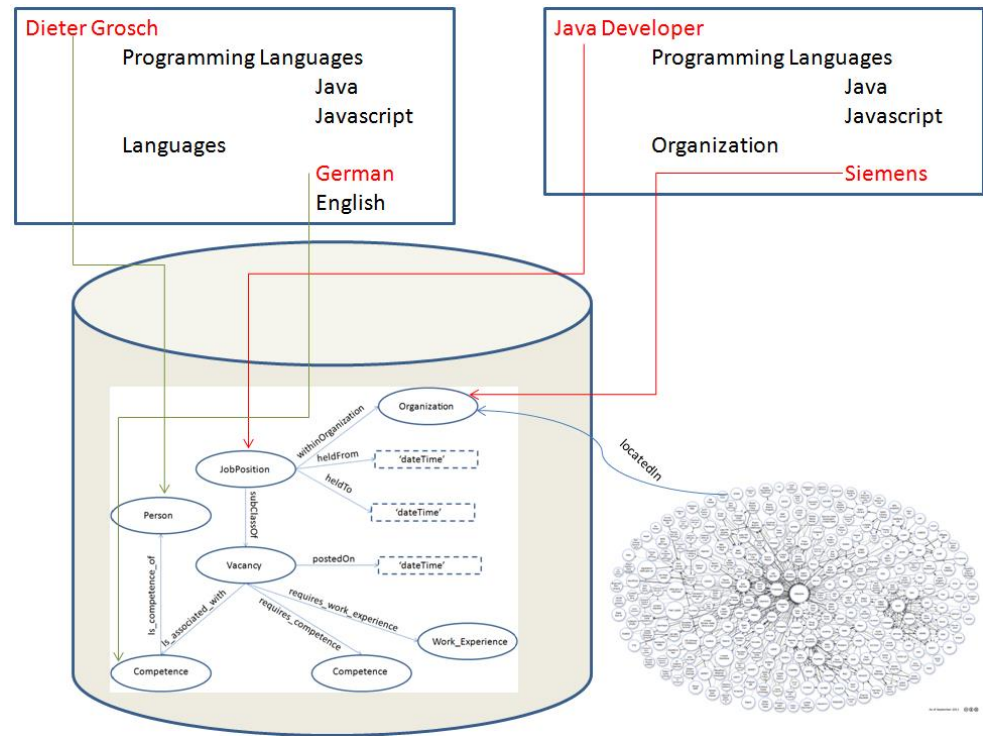
DaaS

Industrial information on demand
with relevance to

- investors
 - end users
 - suppliers
-
- factual information
 - contextual information
 - analytics

Human Resources Management

- Semantic representation of
skills, competences, geographical information
industries relatedness, organizational and personal
information
- Semantic matching



From module of the ProfiCV system towards DaaS

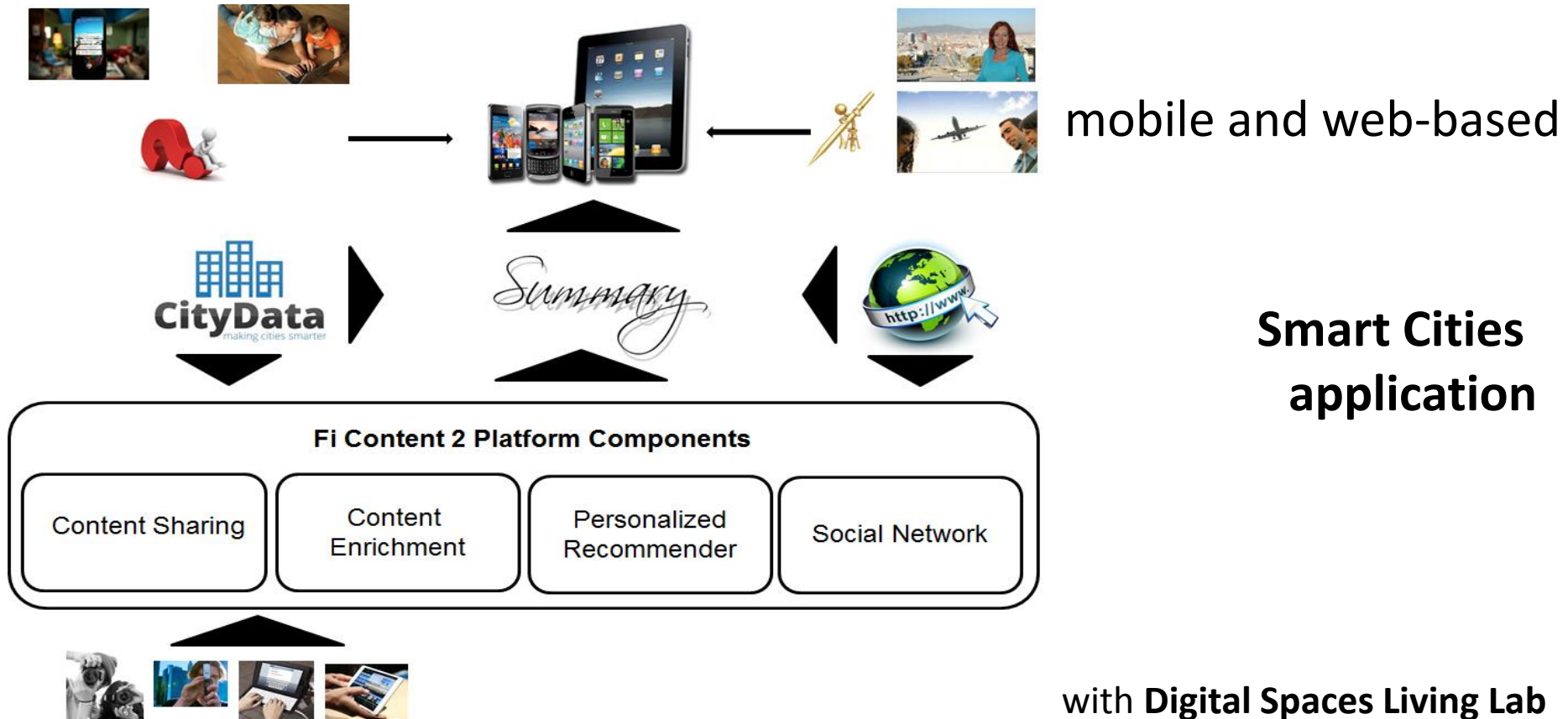
with **ProfiCV** →

CITYSUMMARIES



Real time multi-modal summarization of city experiences and information

- trip planning
- while visiting
- trip memories catcher



Small Communication Satellite Mission



Space Technology and Research Institute at the Bulgarian Academy of Sciences

Sofia State University "Kliment of Ohrid"

RaySat Ltd. (satellite networks company)

- Support and enhancement of science research and human activities in Antarctica
- Hi-speed two-way backhaul data transfer for scientific, safety and other applications
- Off-line two-way operational communication services for professional personal or rescue purposes
- Continental surface measurements of biological and natural phenomena
- Weather monitoring and forecasting

Communications project, aiming to mobilize scientific and industrial effort to build a purely Bulgarian product with international impact.



10-60 Mbps data-transfer bit rate

1500-600-km orbit altitude

remote sensing of Earth exploration

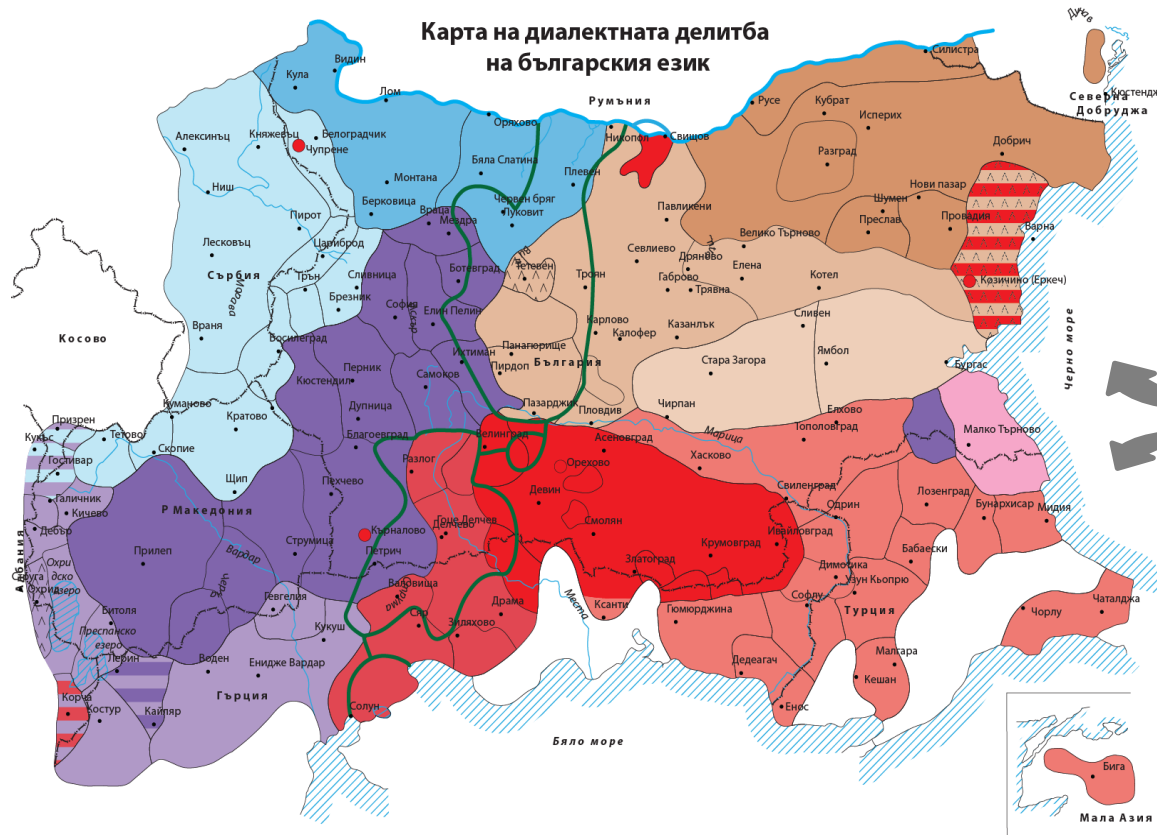
with



Geo Linked Data



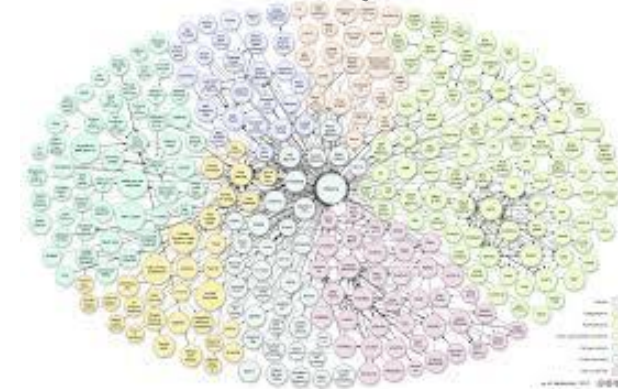
Interactive map of the Bulgarian Dialects



WIKIPEDIA

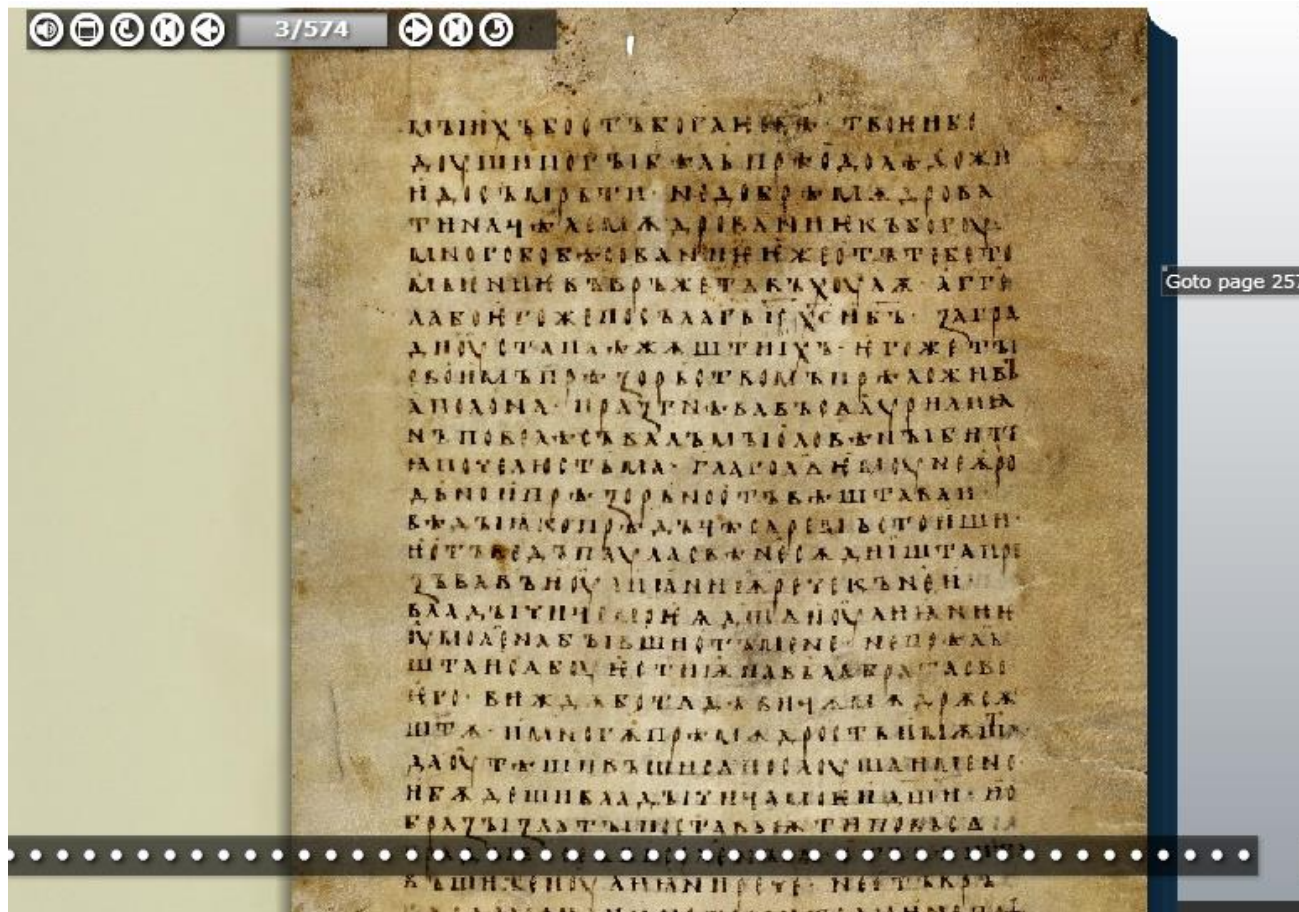
http://ibl.bas.bg//bulgarian_dialects/

with **IBL - BAS**



Codex Supraliensis

metadata in
DM2E format



<http://csup.ilit.bas.bg/node/1>

<http://dm2e.eu/>

Virtual itineraries



starting with Sofia Holy Forest

Idea initiated from 3D laser scanned architectural objects and an undergraduate course in Multimedia at NBU

Файлове в Този Публикация:



Файлове в Този Публикация:



Файлове в Този Публикация:



http://bulgarianheritage.bulgariana.eu/jspui/handle/pub/624/browse?type=name&submit_browse=%D0%9E%D0%B1%D0%B5%D0%BA%D1%82%D0%B8

The shown items are made with Europeana and Geocad93. They are part of Bulgariana collection and are currently hosted at Ontotext.

- Linked Open Data publishing
- E-Publishing, E-books
- Intelligent reading and writing assistants
- Scientific literature publishing

with **Springer Verlag**
with **Sofia University**
and others

- Association based natural language processing
- Sentiment expression
- Lexical semantics
- Visual lexicon



Capturing human and personal characteristics
based on the tags chosen for an image

So, it will be ...

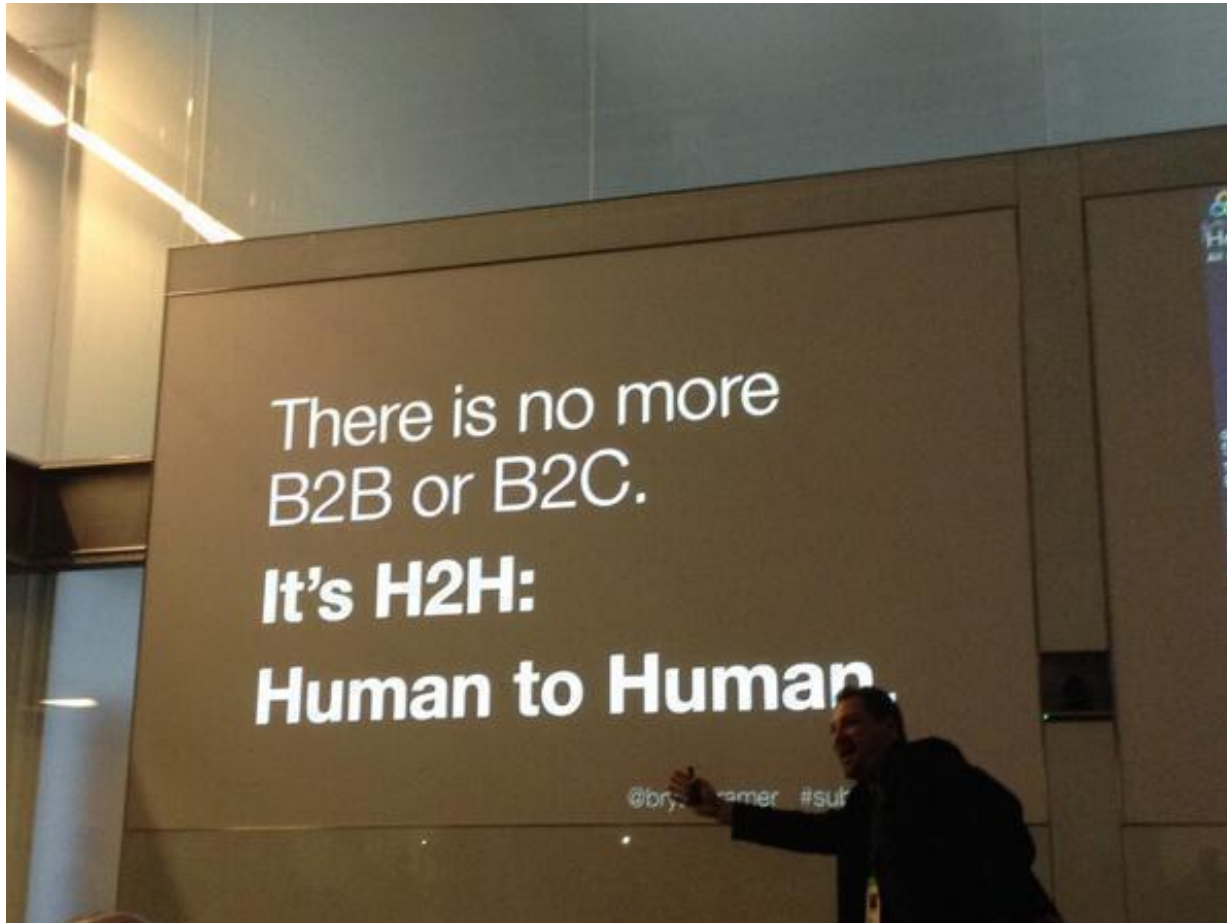


Image Credit: Robin Bertolletti

These are the Humanizing Technologies



Thank you for your attention!

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Mozaika

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