

FashionBrain: Understanding Europe's Fashion Data Universe

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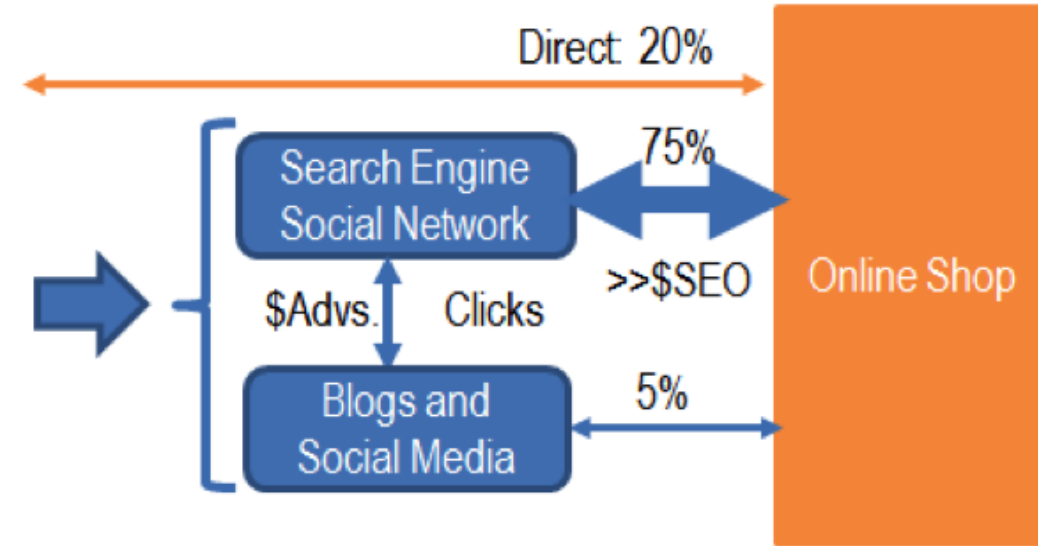


Project Duration 2017-2019. Funded under the H2020-ICT-14-2016 topic Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation. Total cost: 2.9M EUR.

Customer

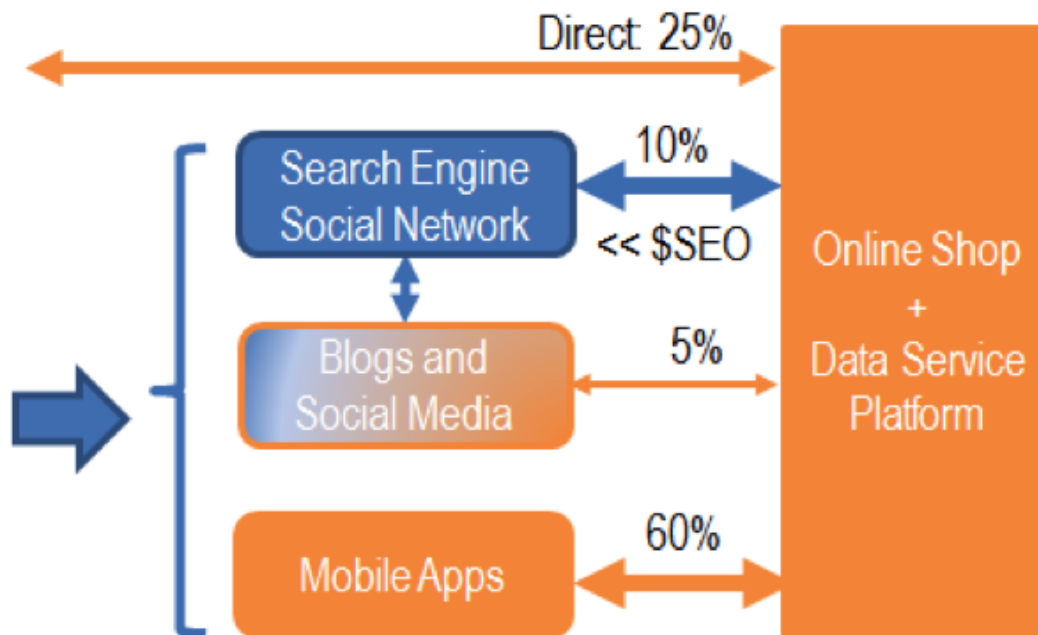
Enters in Online Shop via Channel...

Value Chain & Suppliers



Suppliers can not optimize processes with insights from search engine traffic

2016



Suppliers optimize process across value chain with insights from data services of fashion platform

2020



Data Challenges in the Fashion Industry

- **Data is not used in an integrated fashion**
 - Data is stored in silos
 - Each data source owns data in different formats and platforms
- **Search engines dominate** customer behaviors
 - Search engines and social network companies are in a strong position to settle a new global monopoly on customer understanding thanks to AI technology
 - Retailers have limited access to customer data
- **Fashion bloggers influence** customer choices
 - Limited understanding on bottom-up changes in fashion
 - Shift from traditional stylist-driven fashion

FashionBrain Objectives

- Novel Shopping Experience: **Make Images Searchable**
 - Product search and recommendation
 - Moving away from the 'real human shop assistants'
- Shift Traffic away from Web Search Engines to **Retailer's Mobile Apps**
 - By providing custom shopping experiences and advanced search tools
- Detect Influencers and **Predict Fashion Trends**
 - Time Series Analysis
 - Social Media data
- **Share Insights** with Cross Industry Partner Network
 - Data Integration infrastructure based on HDFS and column stores

Exploitation of Business Data Assets

- Data integration and value creation across
 - Shop Inventory of around 100 online shops
 - Social Media (Fashion bloggers)
 - User reviews about fashion products in 11 languages
 - Product catalogs
 - OEM manufacturer information
 - Sales data
 - Web crawls
 - Crowd-generated data

Measurement of data exploitation

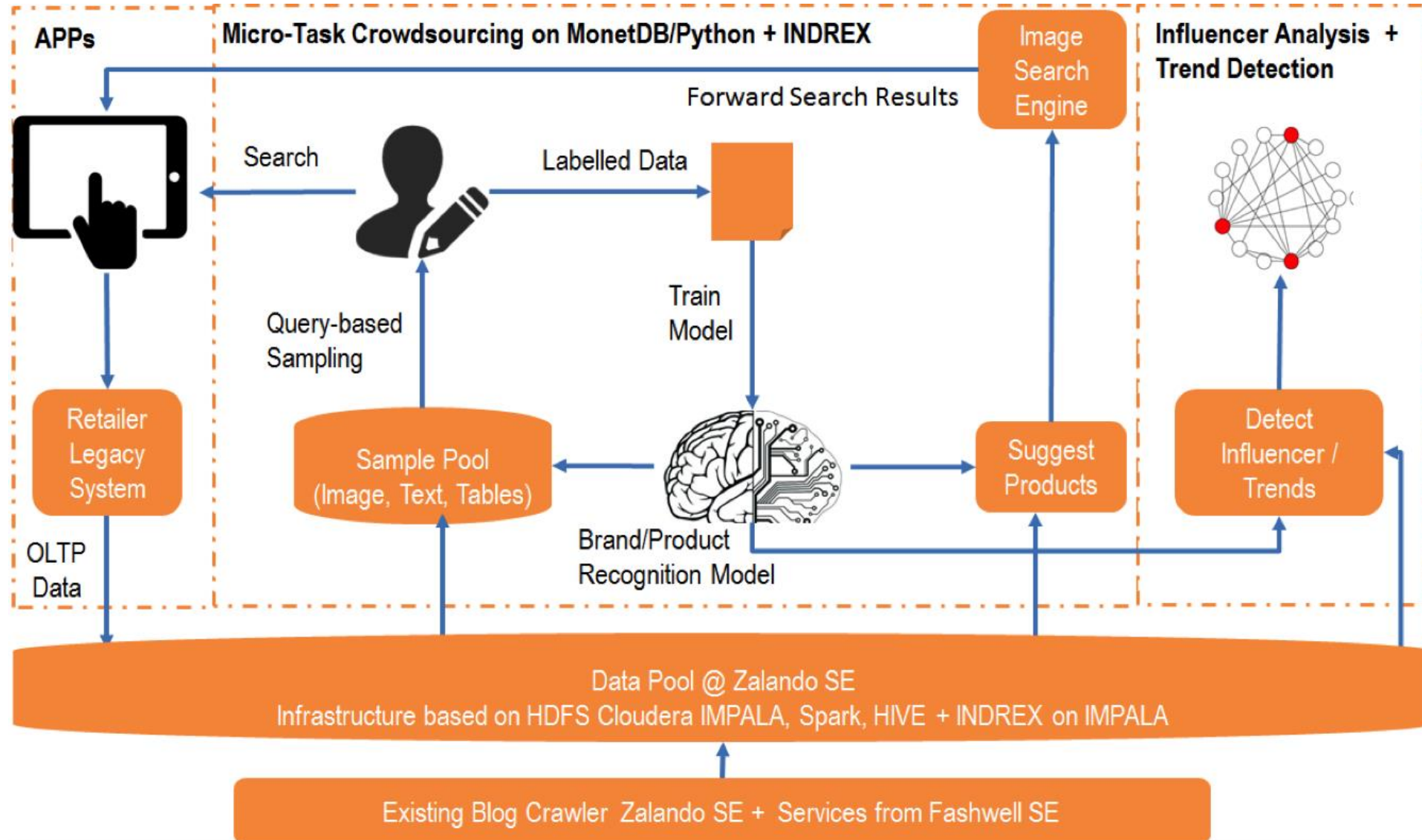
- Demos; Algorithms; Impact on sales;

Data asset	Exploited by	Impact on business partners
Shop Inventory of around 100 online shops	Fashwell	Used for Photo-based product search demos
Social Media (Fashion bloggers)	Fashwell	Used for Photo-based product search demos
User reviews about fashion products in 11 languages	Zalando	Demonstrator of text join and relation extraction methods
Product catalogs	Zalando	Used for Photo-based product search demos
OEM manufacturer information	Zalando	Supply chain optimization
Sales data	Zalando	Time Series analysis; Trend detection demo
Web crawls	Beuth	Identification of fashion-related content; Demonstrator of text join and relation extraction methods
Crowd-generated data	All	Used for Photo-based product search demos; Trend detection demo

FashionBrain - Data Value Chain


- **New data** entity-centric **integration methods**
 - Named Entity Recognition and Linking across sources
- New Data Technology
 - **Time Series Analysis** for Fashion Trend Detection
 - **Deep Learning** based Text Mining
- Data-driven **demos**
 - Search by Image
 - Product Recommendation

FashionBrain - Searching and shopping query workflows




FashionBrain - Photo-based product search


SHOP THE LOOK ×




Ray-Ban
149,95 €




Gipsy
199,95 €




Lyle & Scott
139,95 €




Shine Original
29,95 €




DIESE LOOKS KÖNNTEN DIR AUCH GEFALLEN
Aktuell sind leider keine weiteren Looks verfügbar.



Brooklyn's Own by Rocawear
39,95 €




Won Hundred
134,95 €



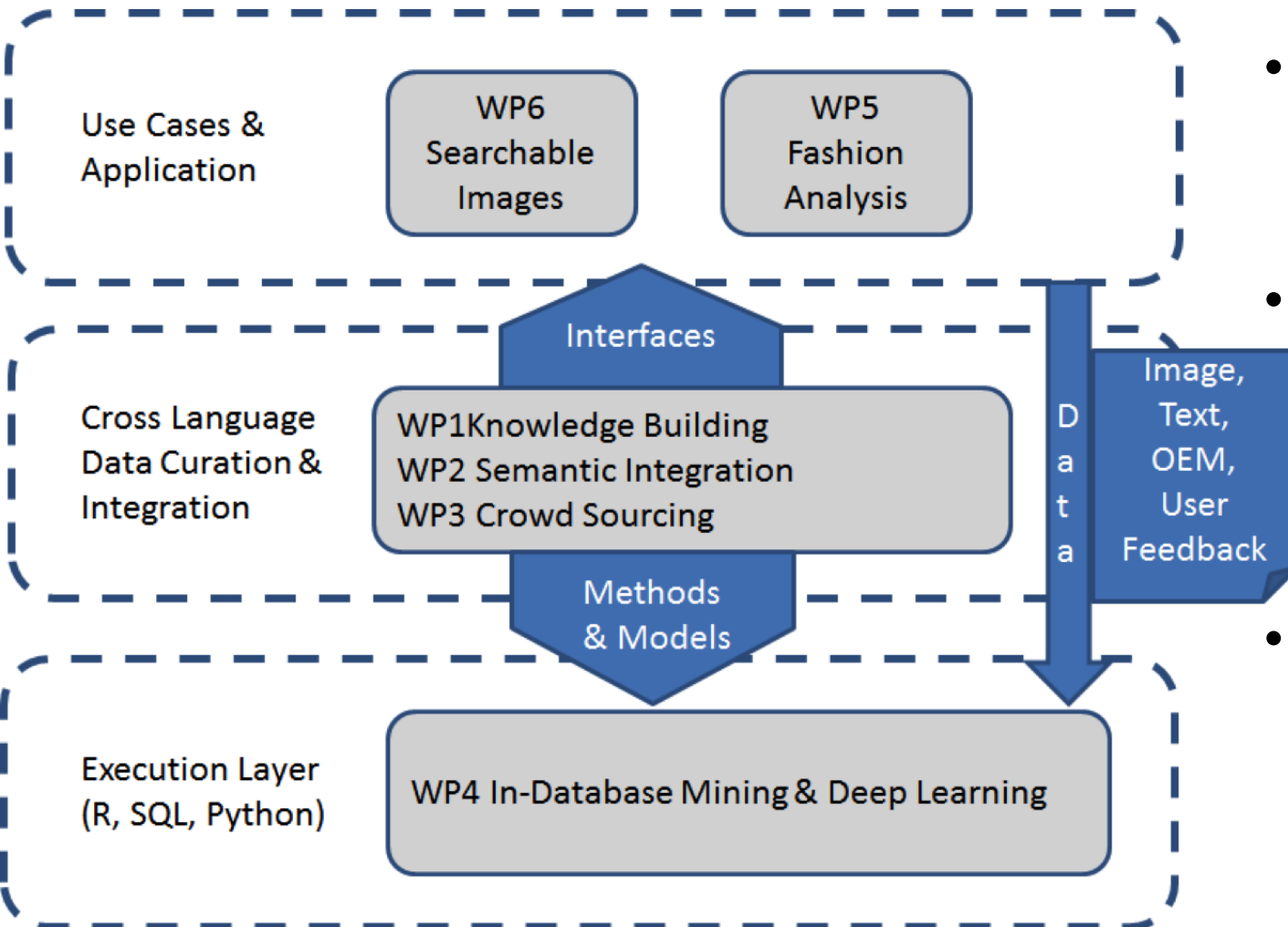
adidas Originals
99,95 €

Das passt dazu



Brixton
59,95 €

FashionBrain Project Roadmap



- Year 1 - Foundations
 - Requirement Analysis
 - FashionBrain Schema
 - Datasets
- Year 2 – Core techniques, data, demos
 - Named Entity Recognition and Linking
 - Time Series Analysis for MonetDB
 - Crowd Data Aggregation
 - Social Media Annotations
 - Demos
- Year 3 – Advanced applications
 - Relation Extraction w/ Deep Learning
 - Final Demos (Trend Prediction, Search)
 - Business Plan

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