

A.I + Fashion



전재영

CEO of Omnious

Brief Introduction of Omnious



Vision: Fashion Powered by A.I

- Deliver an optimal fashion discovery experience to user and shop
 - Styloop & Visual search API
- Help fast decision making for designers, strategists and merchandisers
 - Upcoming product

Value of Artificial Intelligence



“인공지능에서 획기적인 발명을 하여 기계가 배울 수 있게 한다면, 마이크로소프트 (Microsoft)의 10배 가치가 된다.”

-빌 게이츠, 2004년 2월, MIT 강연에서



“PC, 모바일의 시대는 이미 지나갔습니다. 앞으로 인공지능(AI)·사물인터넷(IoT)이 지금까지 존재했던 모든 산업의 틀을 재편해버릴 것입니다. 새로운 비전을 생각하면 여전히 흥분됩니다.”

- 손정의, 2016년 10월 25일

Machine Intelligence LANDSCAPE

CORE TECHNOLOGIES

ARTIFICIAL INTELLIGENCE



DEEP LEARNING



MACHINE LEARNING



NLP PLATFORMS



PREDICTIVE APIS



IMAGE RECOGNITION



SPEECH RECOGNITION



RETHINKING ENTERPRISE

SALES



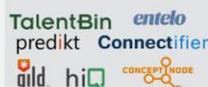
SECURITY / AUTHENTICATION



FRAUD DETECTION



HR / RECRUITING



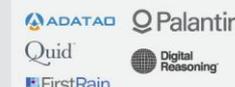
MARKETING



PERSONAL ASSISTANT



INTELLIGENCE TOOLS



RETHINKING INDUSTRIES

ADTECH



AGRICULTURE



EDUCATION



FINANCE



LEGAL



MANUFACTURING



MEDICAL



OIL AND GAS



MEDIA / CONTENT



CONSUMER FINANCE



PHILANTHROPIES



AUTOMOTIVE



DIAGNOSTICS



RETAIL



RETHINKING HUMANS / HCI

AUGMENTED REALITY



GESTURAL COMPUTING



ROBOTICS



EMOTIONAL RECOGNITION



SUPPORTING TECHNOLOGIES

HARDWARE



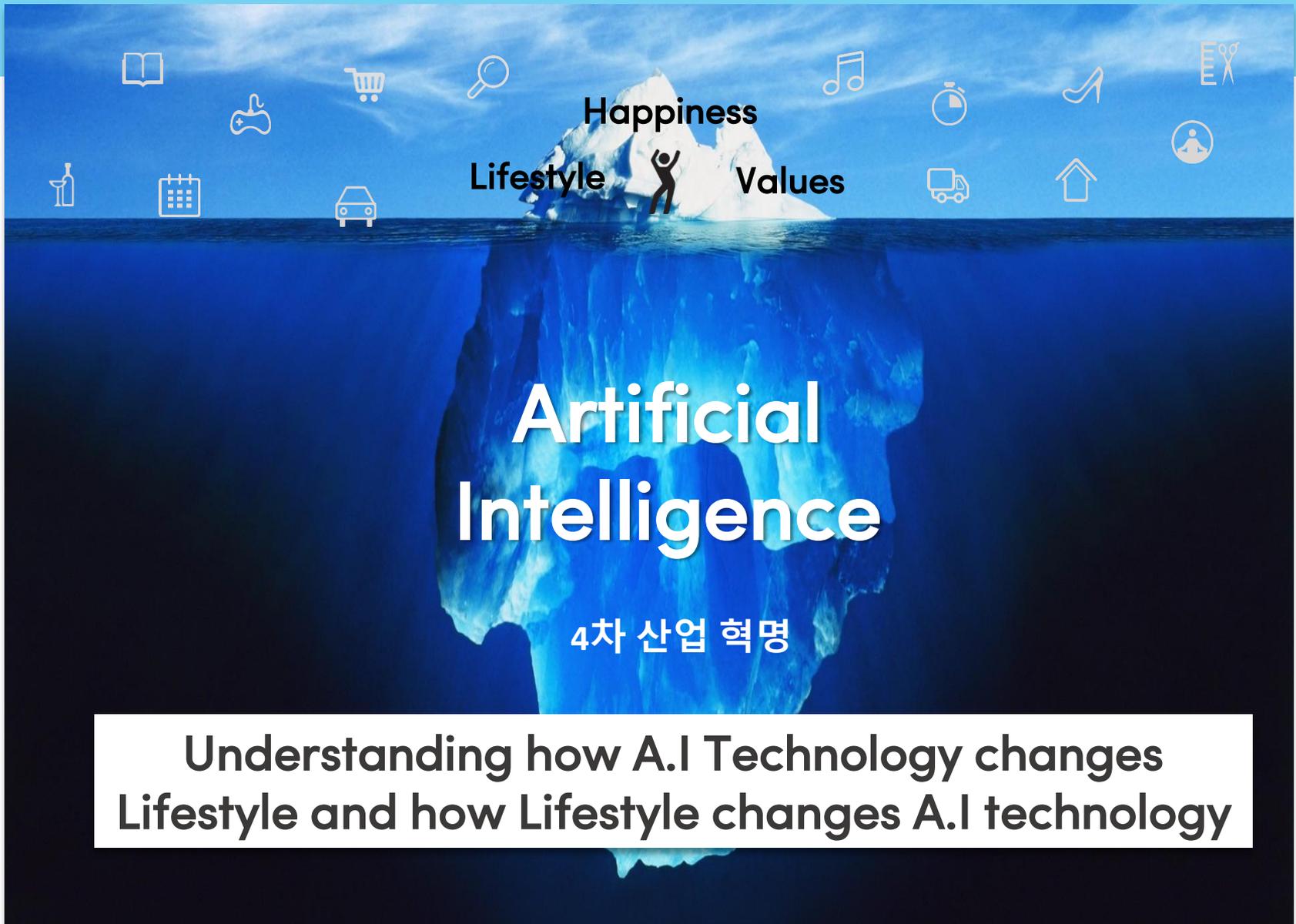
DATA PREP



DATA COLLECTION

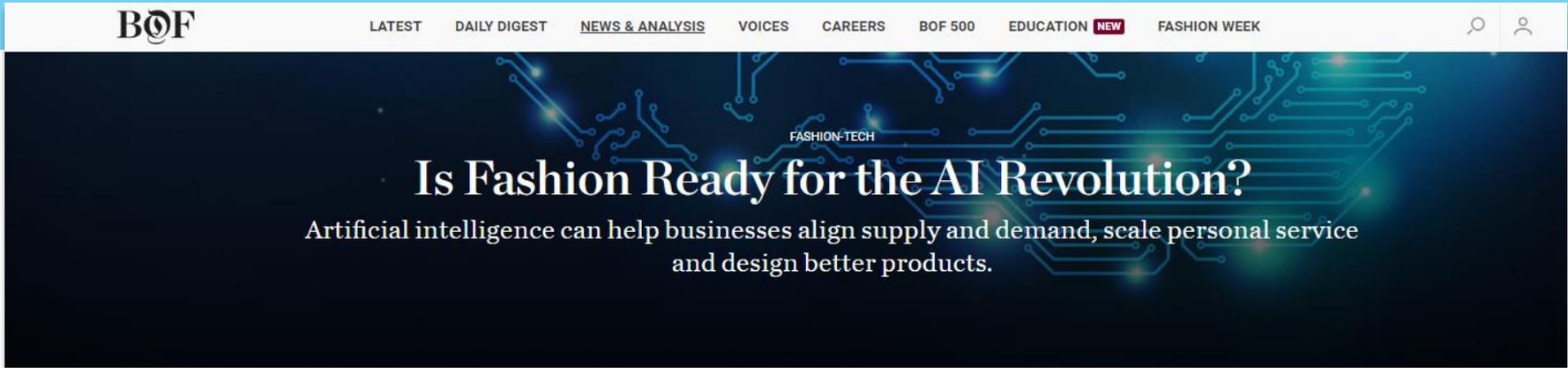


A.I는 우리의 라이프스타일, 가치관, 산업의 근본적 변화

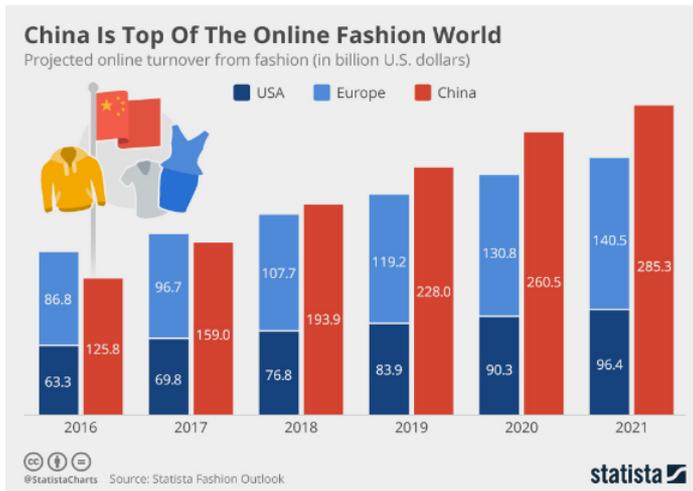


Understanding how A.I Technology changes Lifestyle and how Lifestyle changes A.I technology

Fashion needs A.I



의류, 악세서리 판매업의 73%가 Fast Followers이고 True innovator는 4% 정도이다.
-IBM's Customer Experience index study



패션 온라인 E-commerce 시장의 지속적 성장

온라인 E-commerce의 경쟁이 심화

- 빠른 의사결정이 중요
- 고객 만족도 개선
- 높은 구매전환율, 판매 증대

A.I Powered tool for Fashion

인공지능은 패션 산업에서 수요와 공급의 불균형 문제를 해결하고 개인화된 서비스, 제품 디자인, 상품기획에 도움을 줄 수 있다.

Measuring Demand



- 인플루언서 분석
- 트렌드 분석
- 고객 반응 분석

Personalized service



- 이미지 검색
- 스타일 추천

A.I assistant for Designer



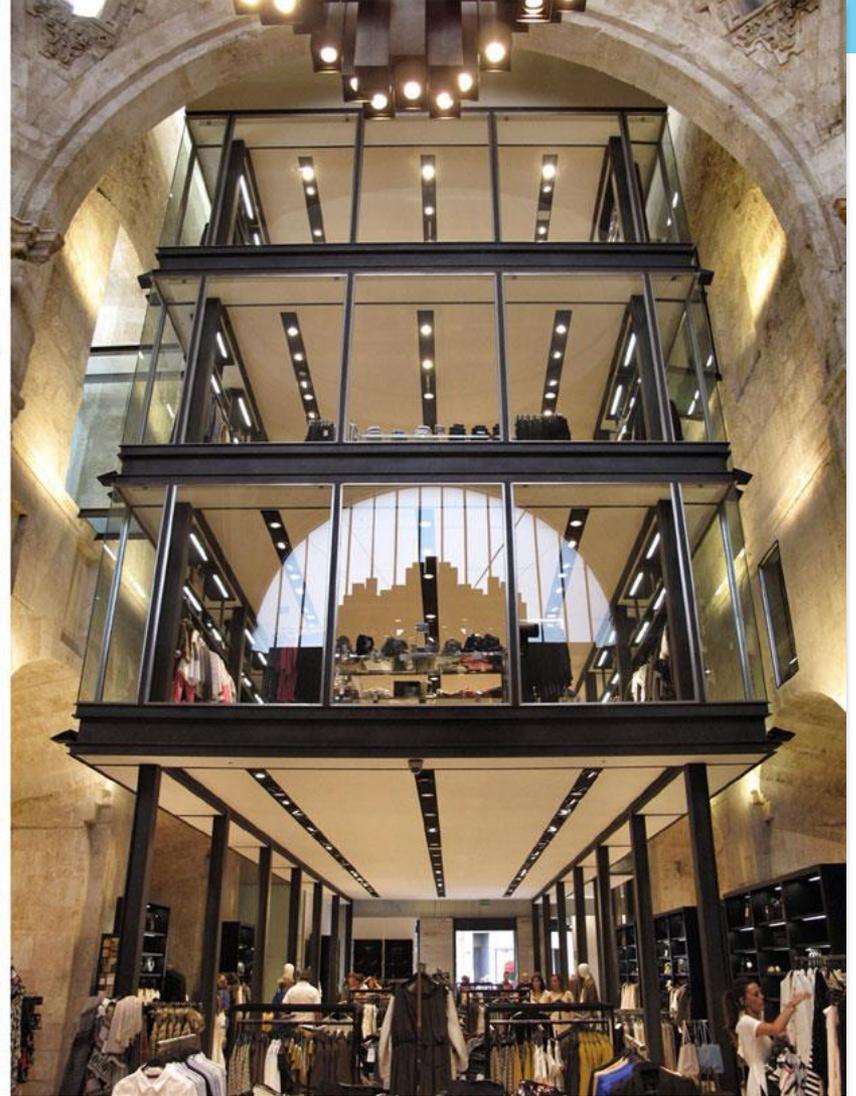
Ex) IBM Watson의
cognitive dress project

직면한 문제: Supply and Demand

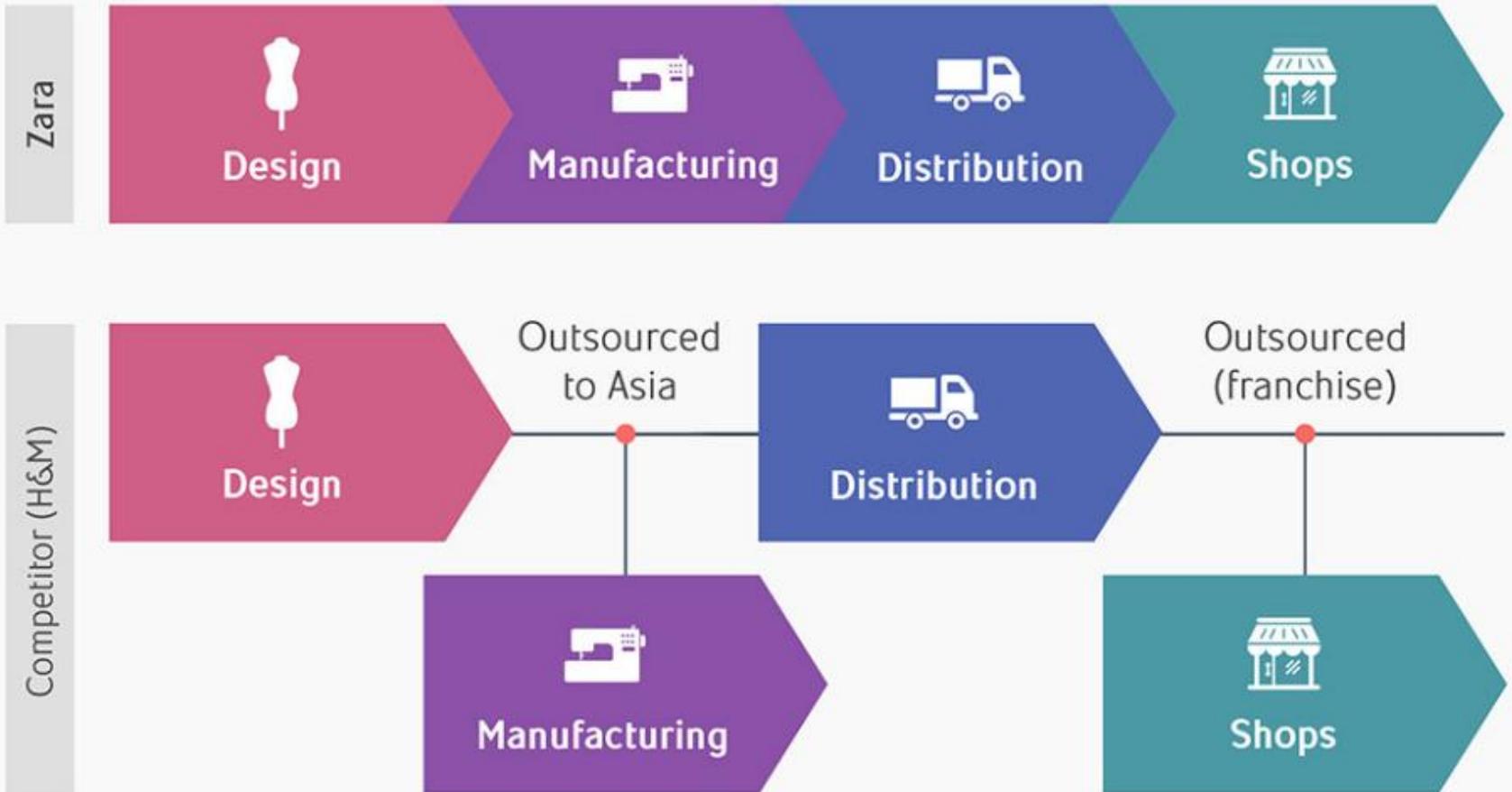
미국에서만 한 해에 14.3만 톤의 텍스타일이 버려지고 있다.



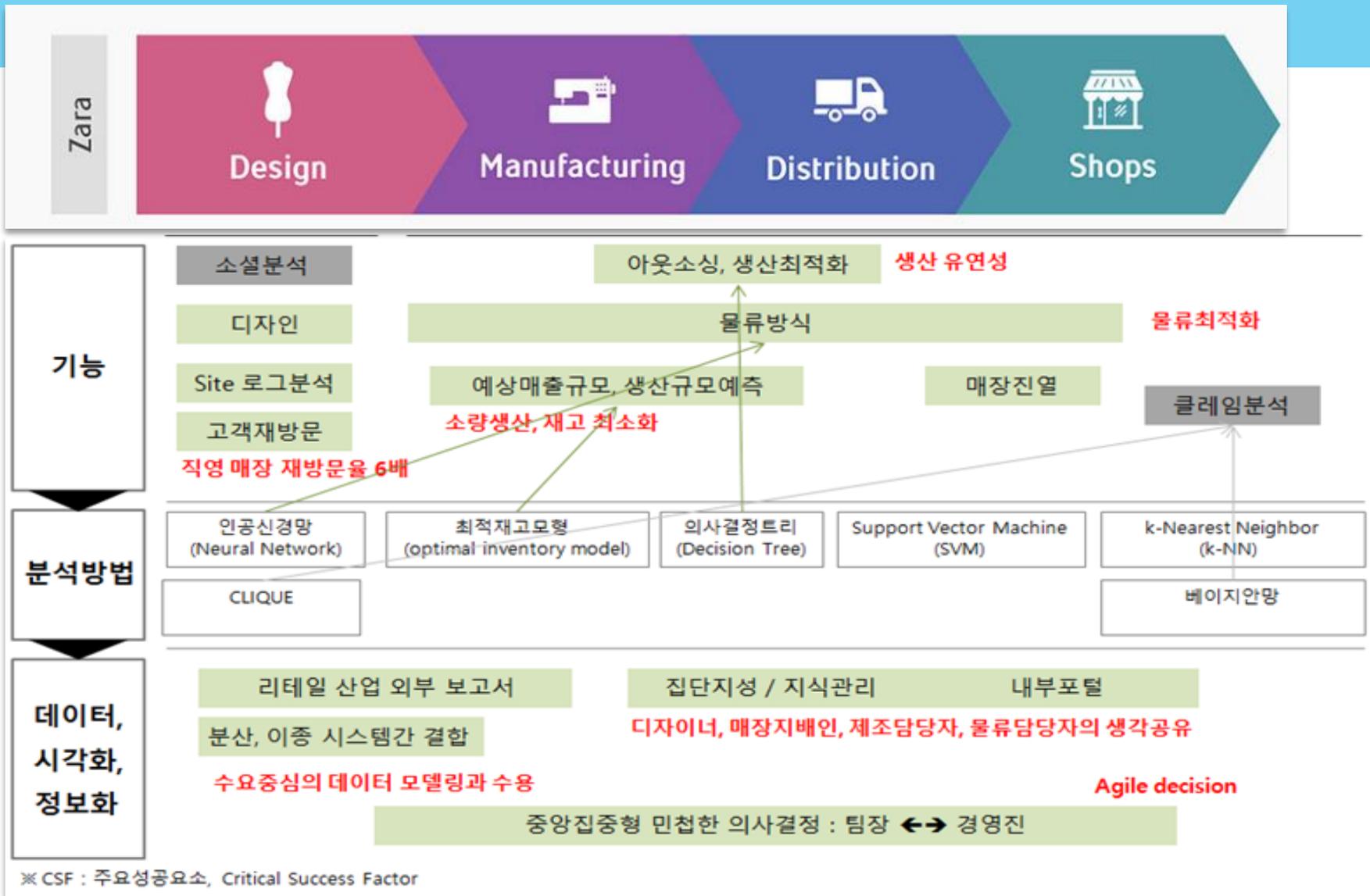
옷은 어떻게 매장에 진열이 될까요?



ZARA 트렌드 신속 포착, 기획에서 유통까지 3주 내 완성



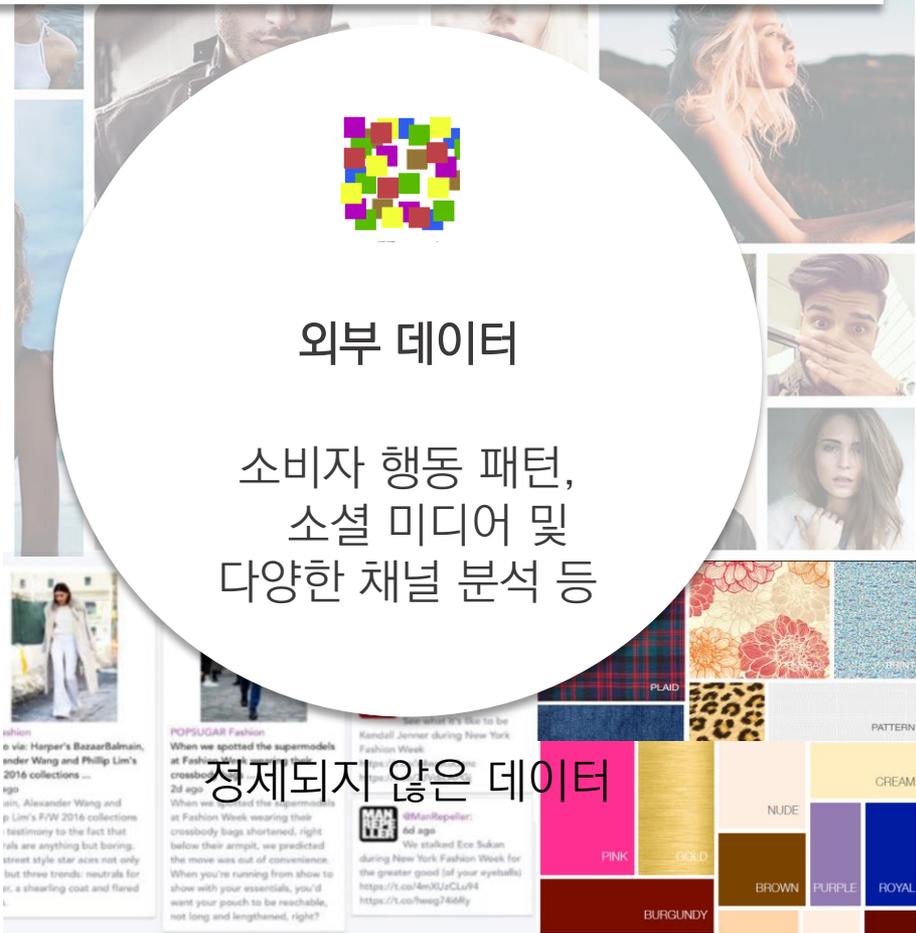
시제품이 아닌 예측된 상품으로 고객 니즈에 맞게 적시 출시



Quickly understand and act on customer needs

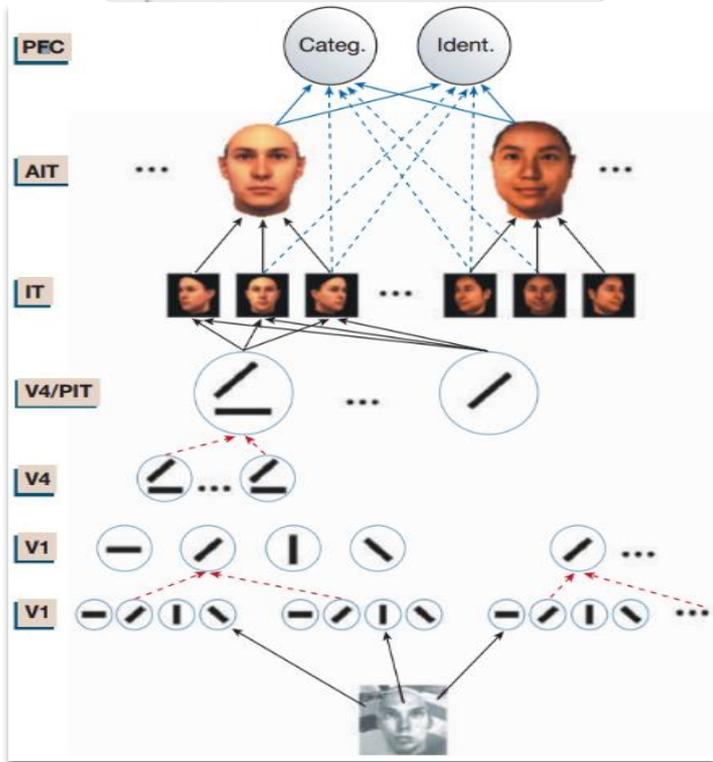
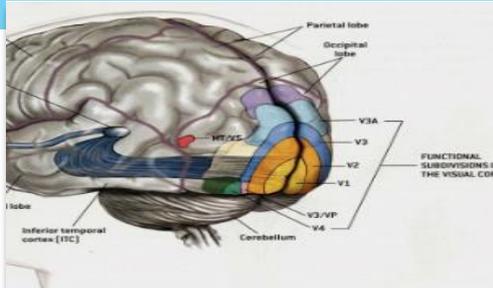
내부 데이터와 외부 데이터의 융합을 통한 예측

-> 수요 및 트렌드 예측, 상품 기획, 디자인에 즉각 반영



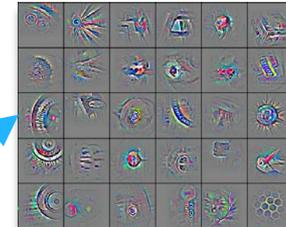
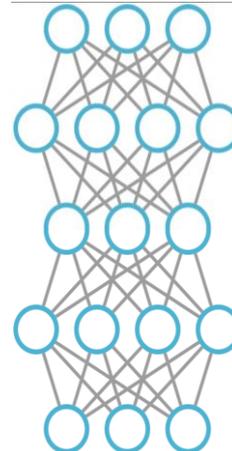
Deep Learning

Brain Inspired Machine learning

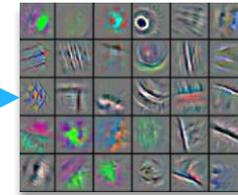


정형화된 데이터
분류항목, 사물이름 등...

특징 추출



높은 수준의 특징
High-level Features

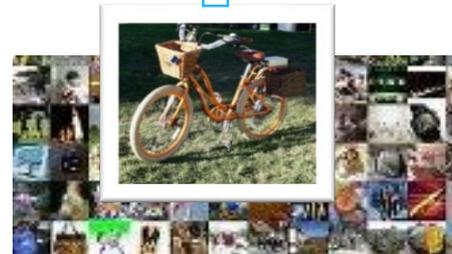


중간 수준의 특징
Mid-level Features
특징들의 조합



낮은 수준의 특징
Low-level Features
윤곽, 방향성분

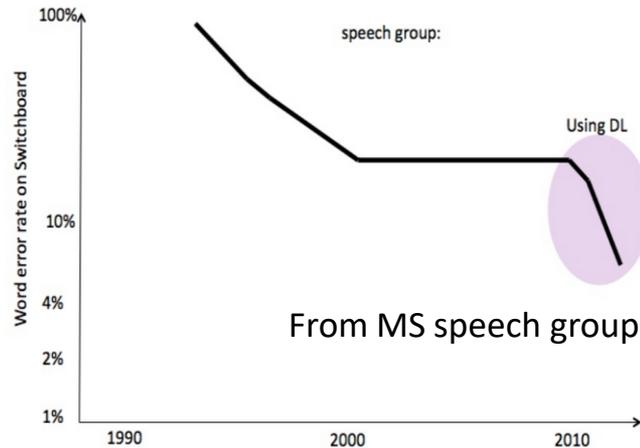
여러 층의 깊은 모델



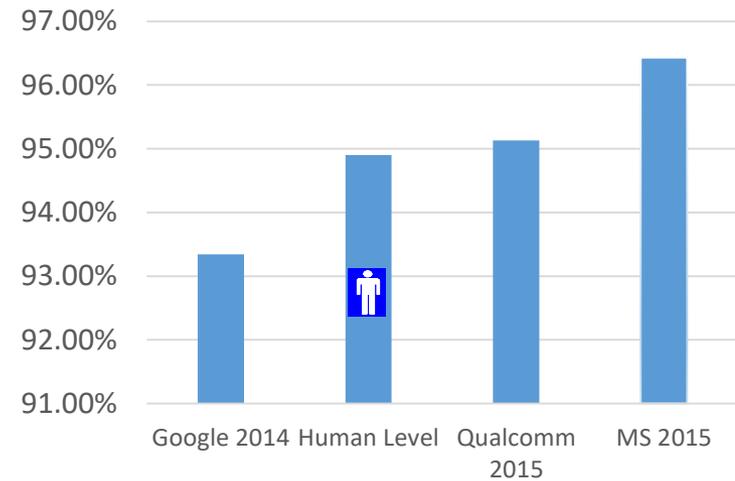
비정형 데이터
영상, 소리 등...

Why Deep Learning ?

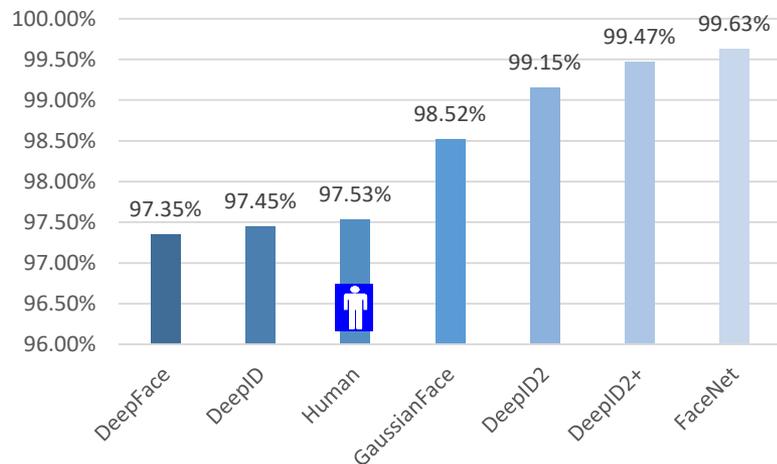
Speech Recognition



Object (Image) Classification



Face Verification



Deep Learning – Basics



: Blouse



: Skirt

Labeled Data

Deep learning
Algorithm

학습(분류)

예측(분류)

Data

Learned Model

Prediction

“Skirt”

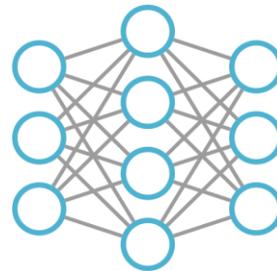


How to understand fashion images?

Using A.I (Deep Learning) Technology



Fashion e-commerce
and social media
images



Deep learning
Network
Customized for
fashion



ITEM: DRESS



PRINT: STRIPE



DETAIL: FLARED



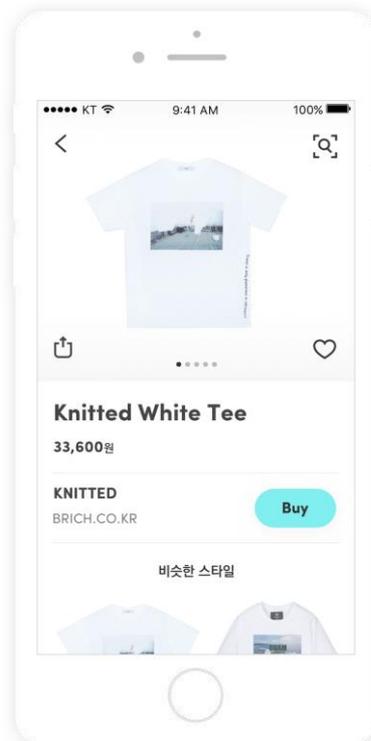
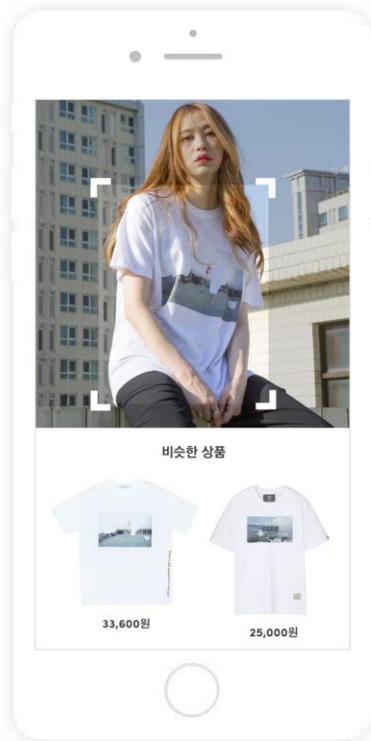
MATERIAL: COTTON

Fashion image analysis



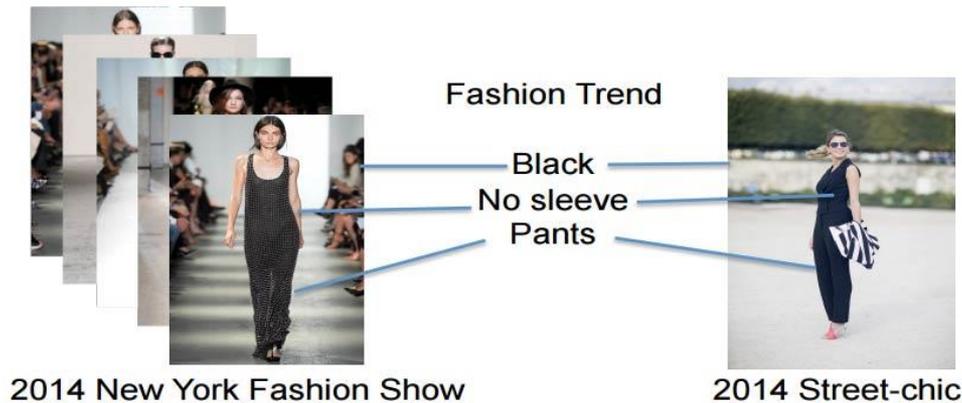
분석, 예측, 검색 등
지능화된 서비스에 활용

Personalized Service: visual search by photo

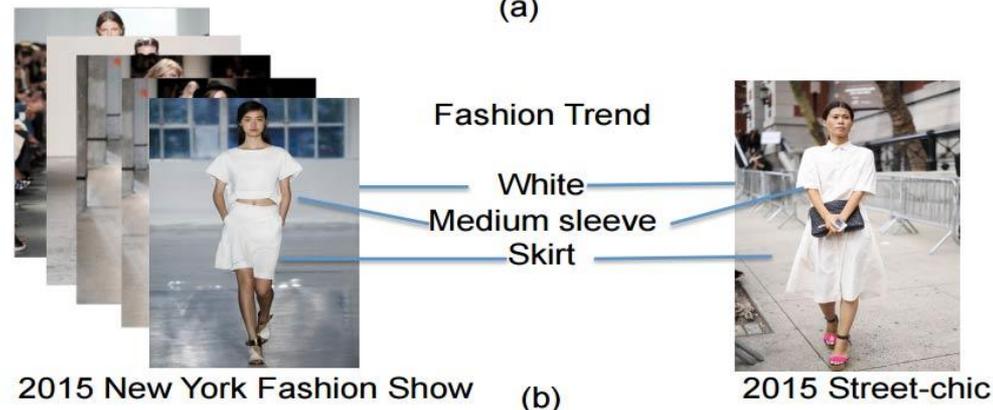


Fashion Trends analysis

Discovering fashion trends in New York City using machine learning



(a)



(b)

