

Intelligenza Artificiale nel Retail



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AI & Big Data

Large amount of Human-generated content

Posizione GPS, “mi piace”, precedenti acquisiti, immagini sui social.

Infrastructures

Cloud computing, GPU-enabled infrastructure

AI-enabled frameworks

Recommender systems, Speech and Text processing, Video and Image analysis

Oligopoly on data

Poche imprese possiedono grandi quantità di dati sull'utente.

EU GDPR

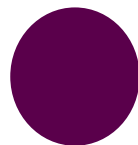
personal information as economic asset

AI-based interpretation of content

by natural language processing, personality traits, object recognition, etc.



Context awareness: **User behavior tracking**



Geotracking

- Self-scan terminals, RFID-tags, Bluetooth/Wifi through smartphones, CCTV cameras [Oosterlinck], IEEE 802.11mc



AI-based technologies

- Clustering of user behaviors,
- Computer vision applications (e.g., people tracking, emotion recognition, action recognition)



Hi-level Goals

- Location Analytics
- Customization of offline promotions [Zhang,Arce-Urriza]
- Aggregated spatio-temporal analysis [Larson]
- Planogramming support [Geismar]



Use cases

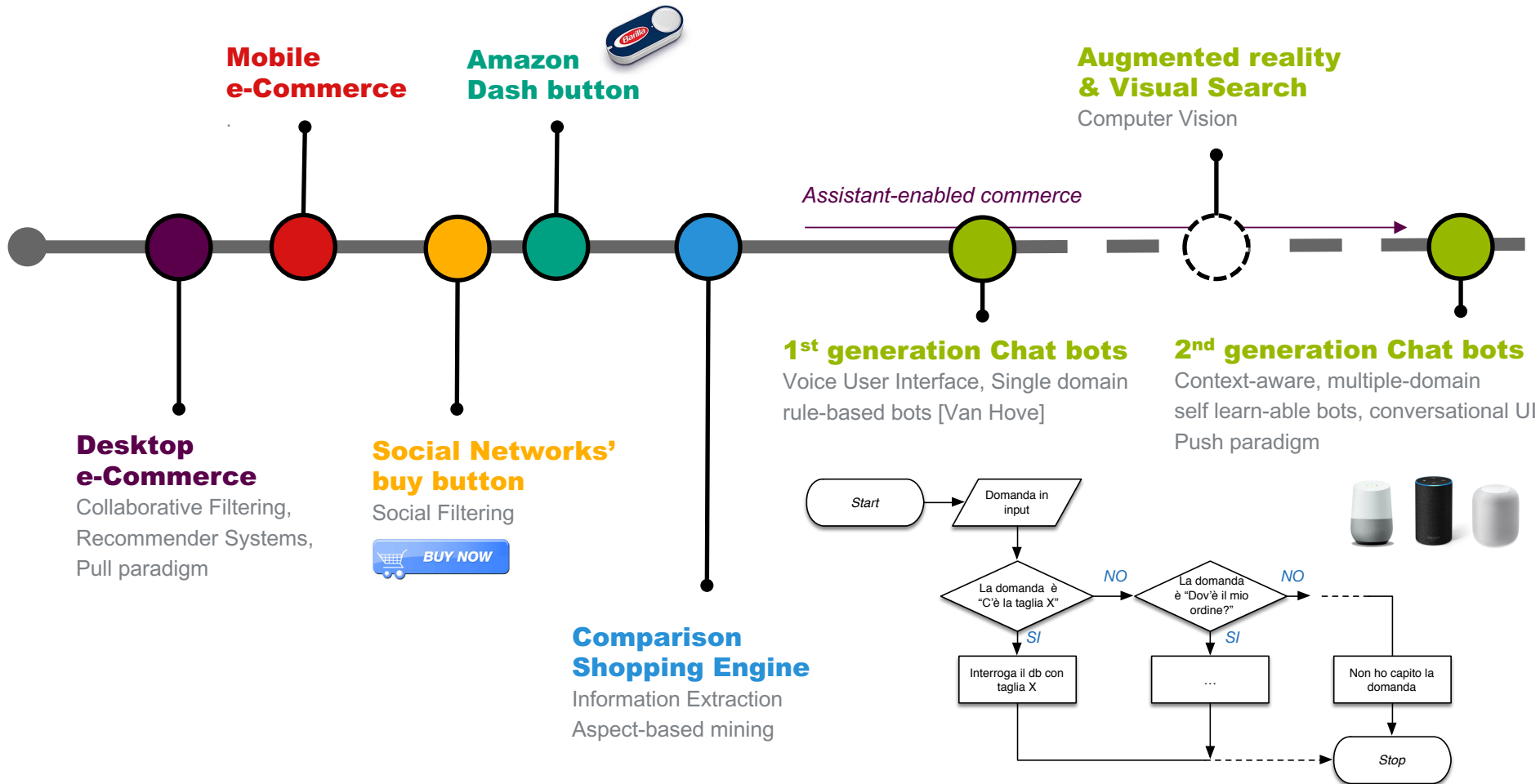
amazon go



Attualmente gli ambienti virtuali, come i marketplace online e i social networks, sono impiegati per catturare dati sul comportamento e le preferenze del cliente.

Gli ambienti fisici sono una fonte altrettanto importante.

User Interfaces: Multimodal & assisted interaction



AI & Retail Considerazioni

1

Unified backbone & Personalization

User-centric optimized and context-aware experience.

Estendere lo User profiling considerando dati strutturati e non strutturati da più canali online e offline.

2

AI-enabled UI experience

Contemplare nuovi paradigmi di interazione (non mutuamente esclusivi).

3

Social advertising

I social networks non solo come fonte di profilazione ma anche per influenzare l'acquirente.

4

Sperimentare AlaaS (AI as a service)

Valutare nuovi paradigmi e sistemi di raccomandazione sfruttando servizi online AI-enabled [Janakiram].

5

Disruptive and Radical AI-based innovation

Pensare alla I.A. non solo per ottimizzare i processi attuali ma per creare nuovi scenari, strategie, mercati.

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