Personalized Service via Recommender Engines

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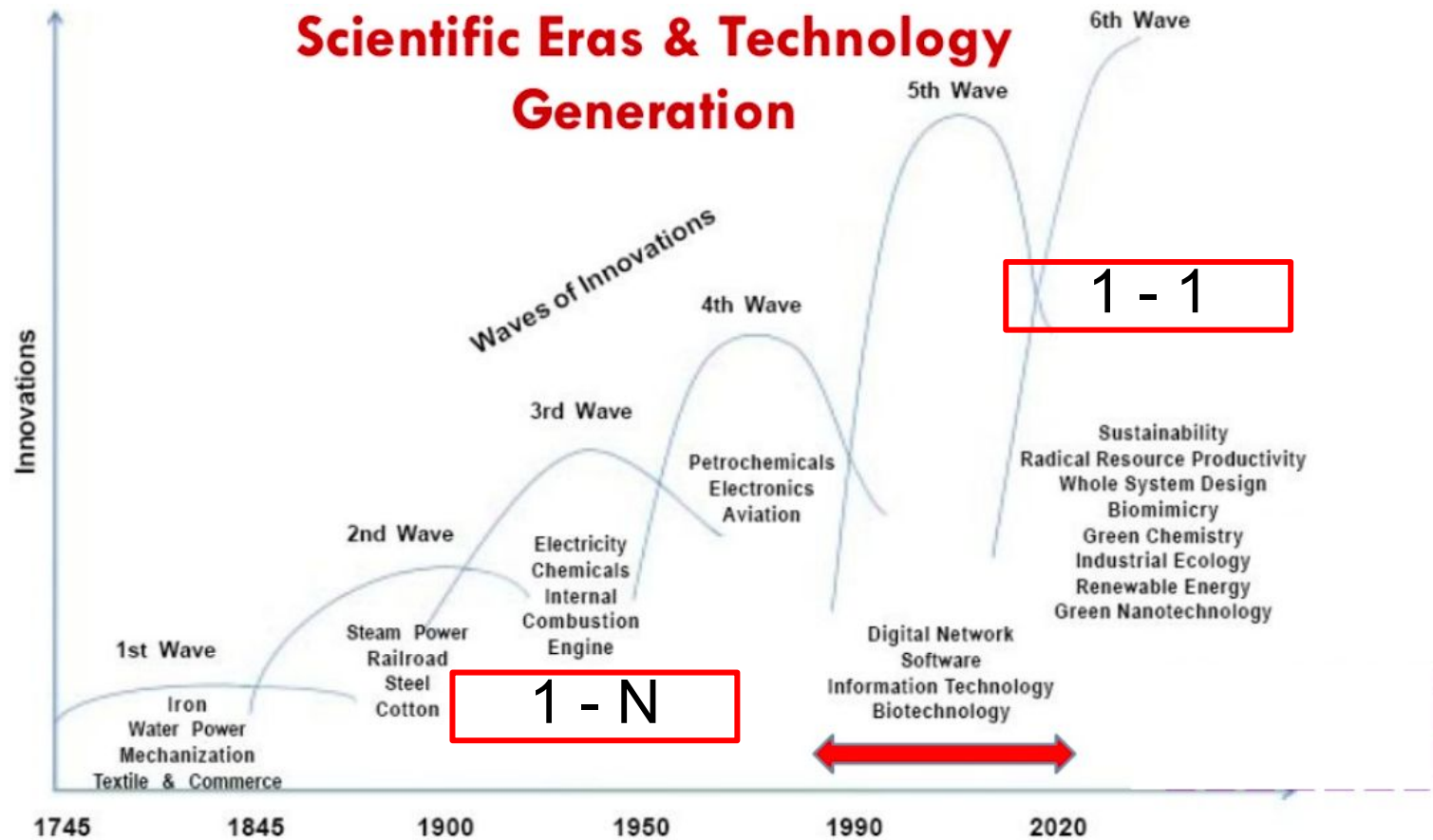
Personalized Service

Give right **products** to right **consumers** at the right **context** (time and location)!

In **2-sided Marketplace** (buyer-seller)
- Gwynnie Bee: Personalized Fashion
- Simply Hired: Personalized Music
- Smule: Personalized Jobs
- Bayessoft: Personalized Medicine
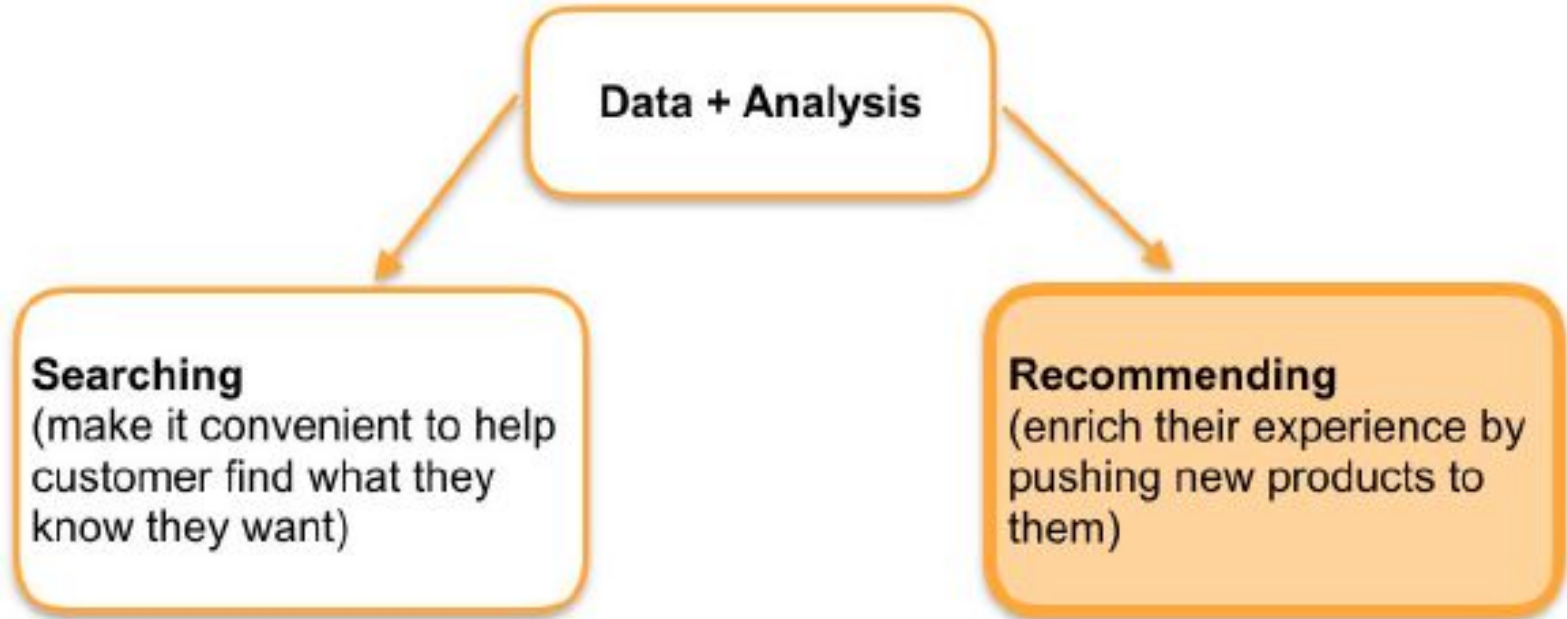
Scientific Eras & Technology Generation

Waves of Innovations

6th Wave

5th Wave

4th Wave

3rd Wave

2nd Wave

1st Wave

Innovations

Iron
Water Power
Mechanization
Textile & Commerce

Steam Power
Railroad
Steel
Cotton

Electricity
Chemicals
Internal
Combustion
Engine

Petrochemicals
Electronics
Aviation

Digital Network
Software
Information Technology
Biotechnology

Sustainability
Radical Resource Productivity
Whole System Design
Biomimicry
Green Chemistry
Industrial Ecology
Renewable Energy
Green Nanotechnology

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1745   1845   1900   1950   1990   2020

Source: Hargroves and Smith (2005)

Industrial Growth

Knowledge Driven Revolution

Personalized Service

Data + Analysis

Searching
(make it convenient to help customer find what they know they want)

Recommending
(enrich their experience by pushing new products to them)

Personalized Service via Recommenders

1. Content-based Recommenders

2. Collaborative Filtering Recommenders

3. Latent Factor Recommenders

4. A Statistical Framework to Unify Them All

5. Recent Developments