



Webshop personalization

How product recommendations can increase your success in online sales

9th webinar of the retail ecommerce series

*an **embitel** initiative*

1st December 2011



Daniel Reborn
dr@dmc.de

- Studied Computer Science at University of Stuttgart
- Entrepreneur since 1992
- Investor and business angel for 5+ IT companies
- Working in retail e-Commerce for last 16 years
- Responsible for development of e-retail sites like Neckermann, Kodak

Founder

dmc digital media center GmbH,
Germany

www.dmc.de

Chairman

Embitel, India

www.embitel.com

Customers Who Bought This Item Also Bought

LOOK INSIDE!



Contemporary World History by William J. Duiker
★★★★☆ (2)
\$83.49



Merlot Cabernet
Vignnon Non-
Alcoholic Red by

LOOK INSIDE!



The Lexus and the Olive Tree: Understanding...
by Thomas L. Friedman
★★★★☆ (410)
\$10.85

*) NO real recommendation. Merged from 2 different ones.

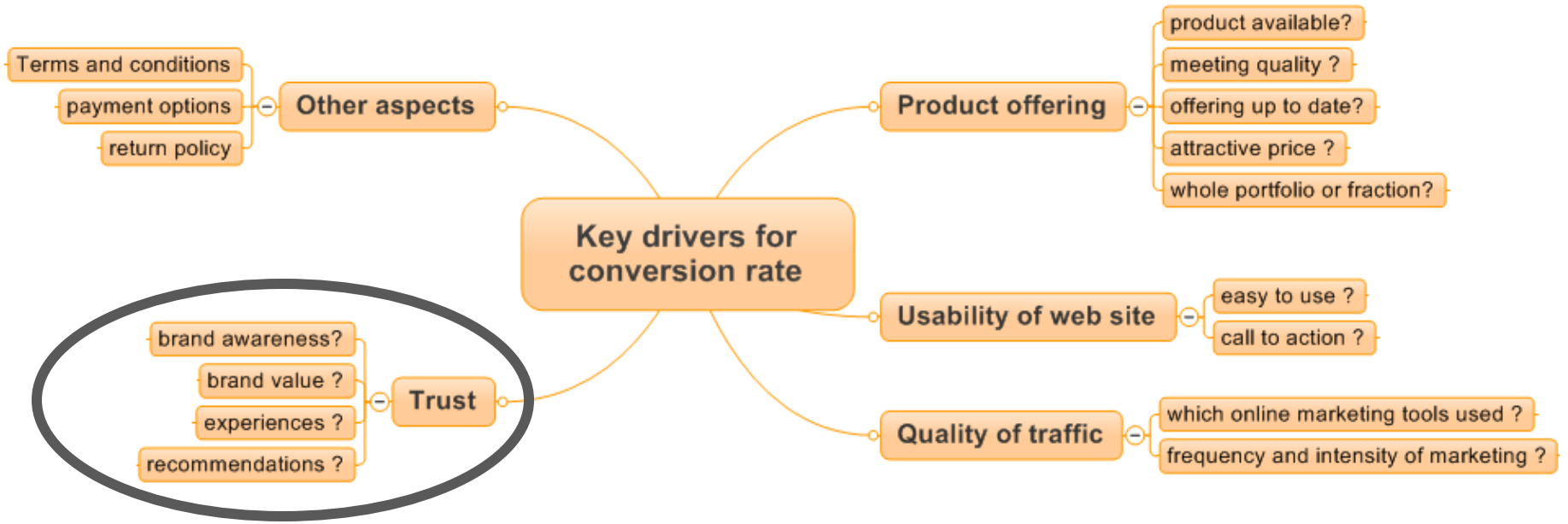
- Basic understanding of current **challenges**
- **Why and where** to use recommendations?
- **How** personalization works? Successfully!
- **Overview** of solution approaches and how to **choose** a solution
- **Future** of personalization in the web





Basic understanding of current **challenges**

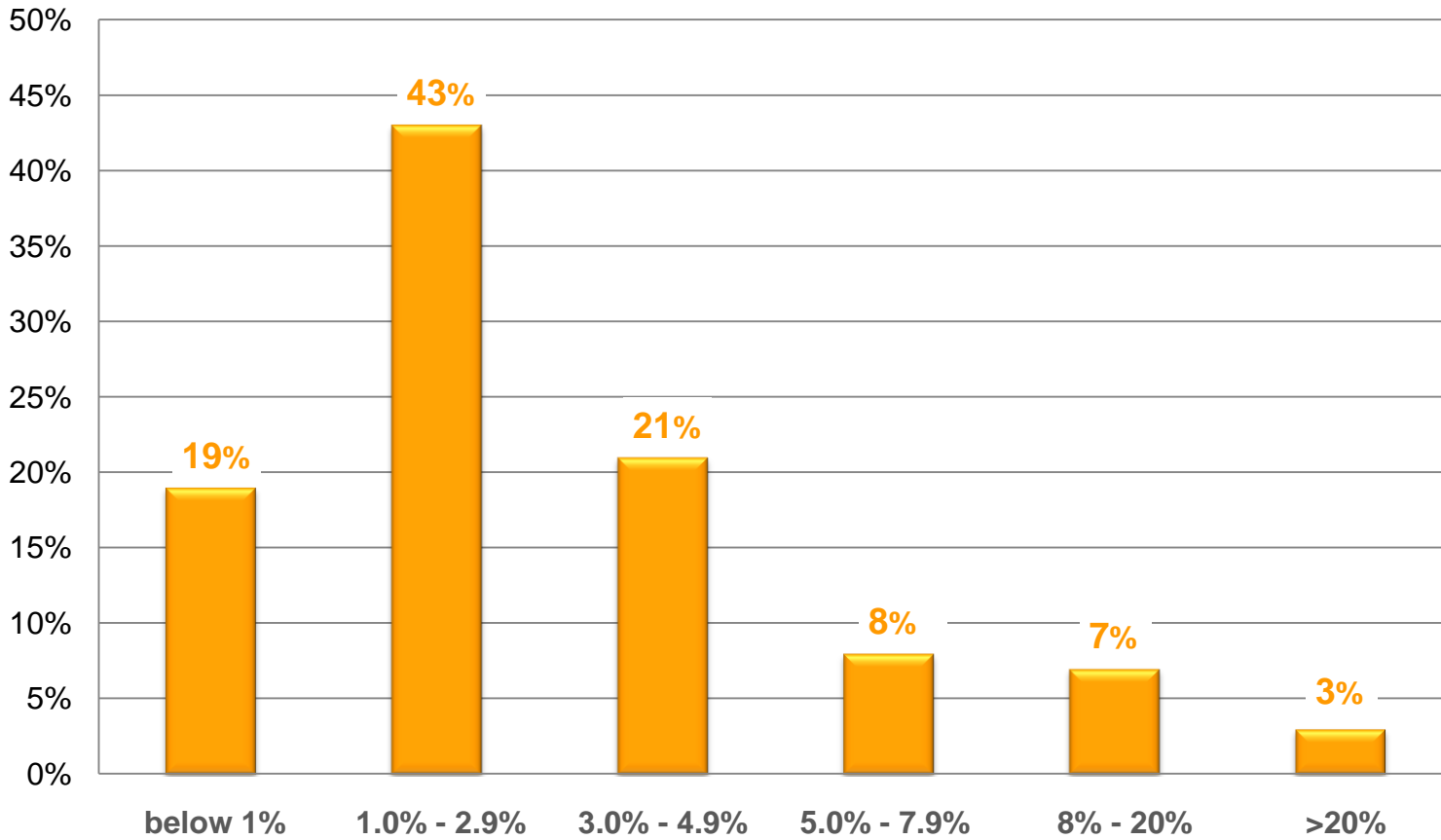
Key drivers for conversion rate

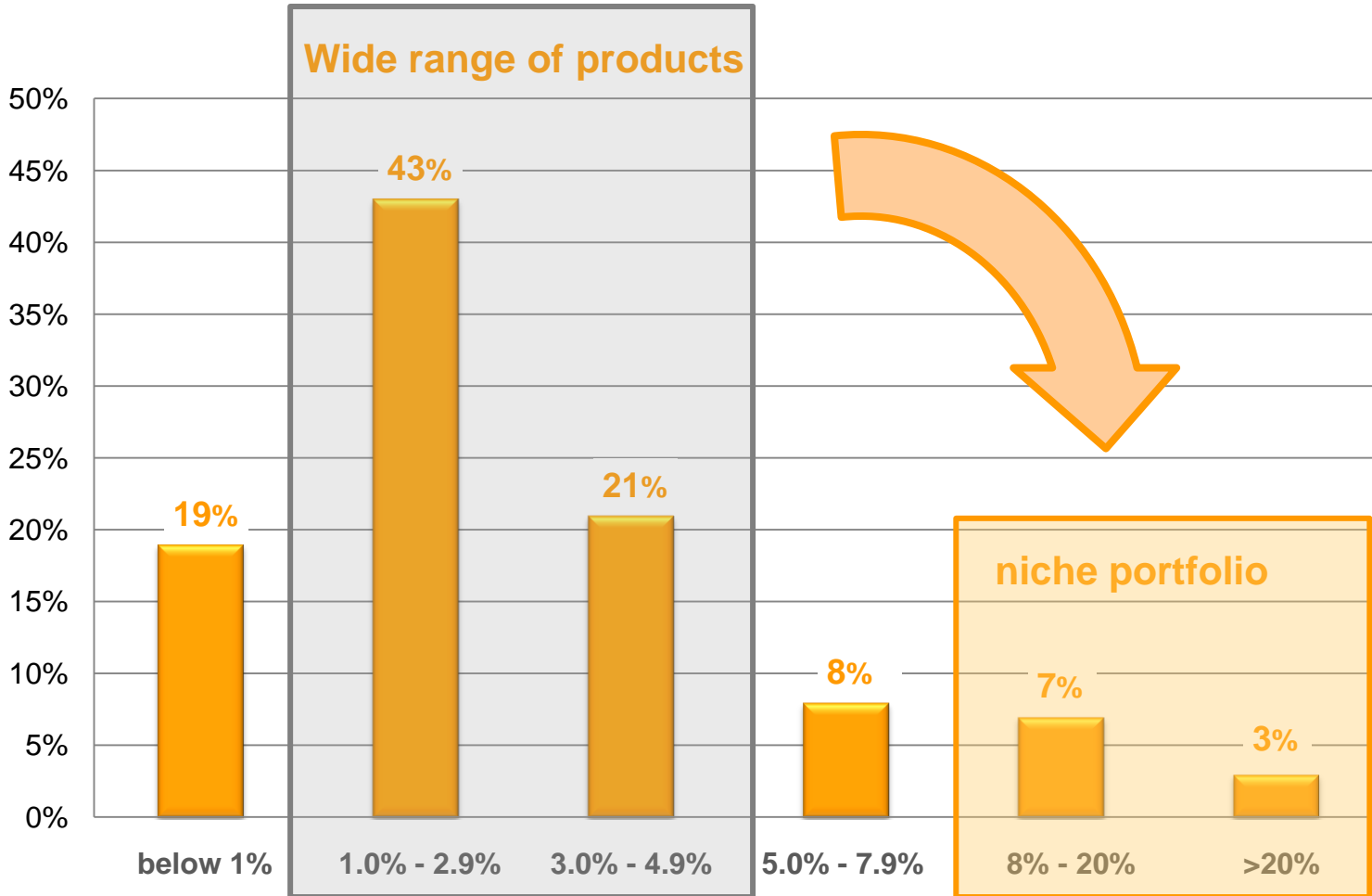


- **Assuming**
 - Running a Web-Shop with 50,000 Visitors per month
 - Average ticket size (shopping cart) of 1,000 INR

- **With a conversion rate of 2.5%**
 - Total revenue of **12.5 Lakh INR**

- **Increase of conversion rate of 0.75% to 3.25%**
 - Increase of revenue to **16.25 Lakh INR** or **30%**





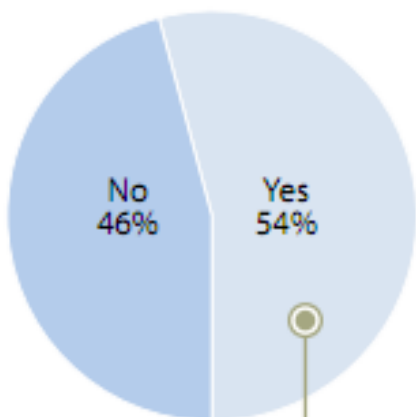
**“If I have 3 million customers on the Web,
I should have 3 million stores on the Web.”**
(Jeff Bezos)



Why and where to use recommendations?

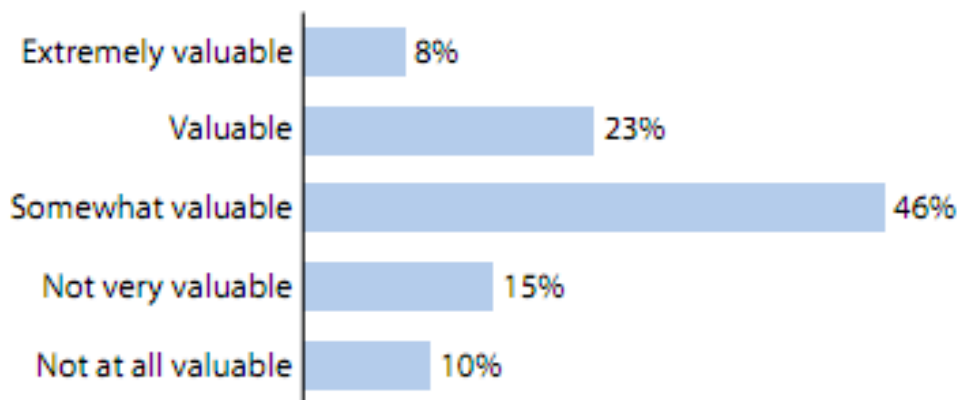
- amazon generates 20%+ more revenues via recommendations
- Average increase of revenues with recommendations: 5-25%
- Increase of ratings & reviews by 10 times using personalized emails
- 100% increase in sales through personalized newsletters

"Have you ever noticed that a retailer's site has included personal recommendations based on products you or other customers have researched or purchases in the past?"



! 34% of consumers who noticed recommendations purchased products based on aforementioned recommendations.

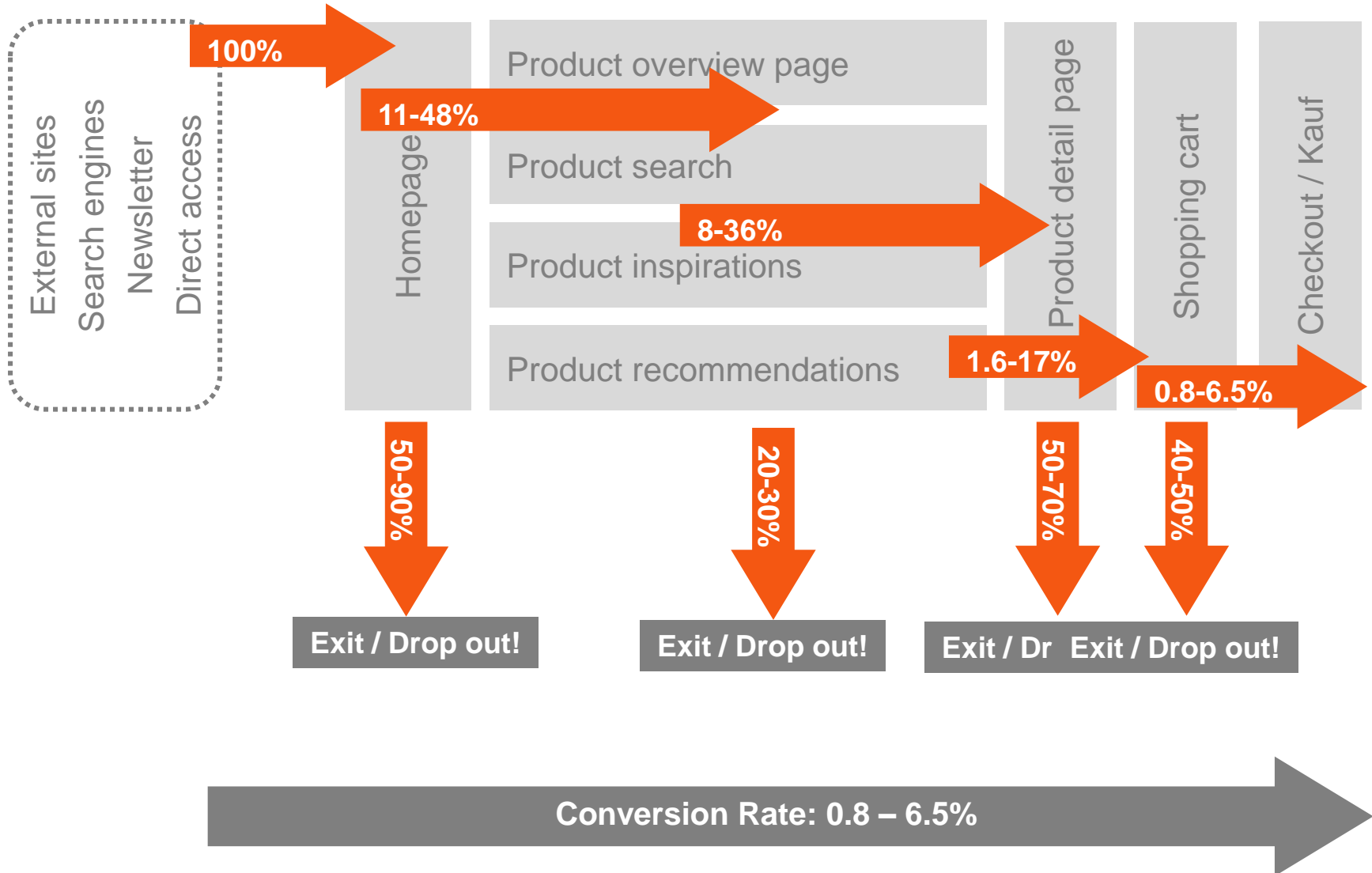
Perception of usefulness
(among those aware)



Base: US online consumers

Source: North American Technographics® Retail And Customer Service Online Survey, Q2 2007

Where to do personalization ?



- 50 – 90% immediately leaving on Homepage
- 20 – 30 % leaving on product overview page
- 50 – 70% leaving on product detail page

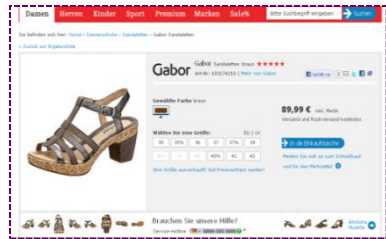
Why let them go, if there are solutions ???

Priority of optimization

1. Homepage and landing pages (up to 200% increase in CR !!!)
2. Product overview / shop navigation
3. Onsite search results
4. Newsletter
5. Product detail pages
6. Shopping cart



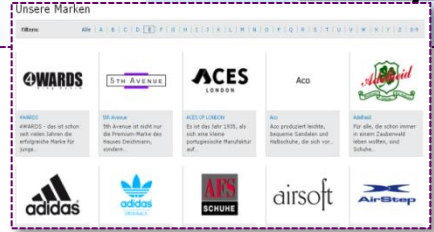
**Our suggestion:
Continuously track,
analyse and optimize**



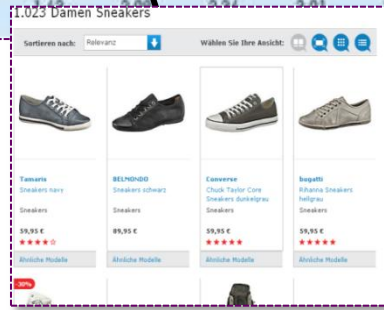
Product detail page



Animated images



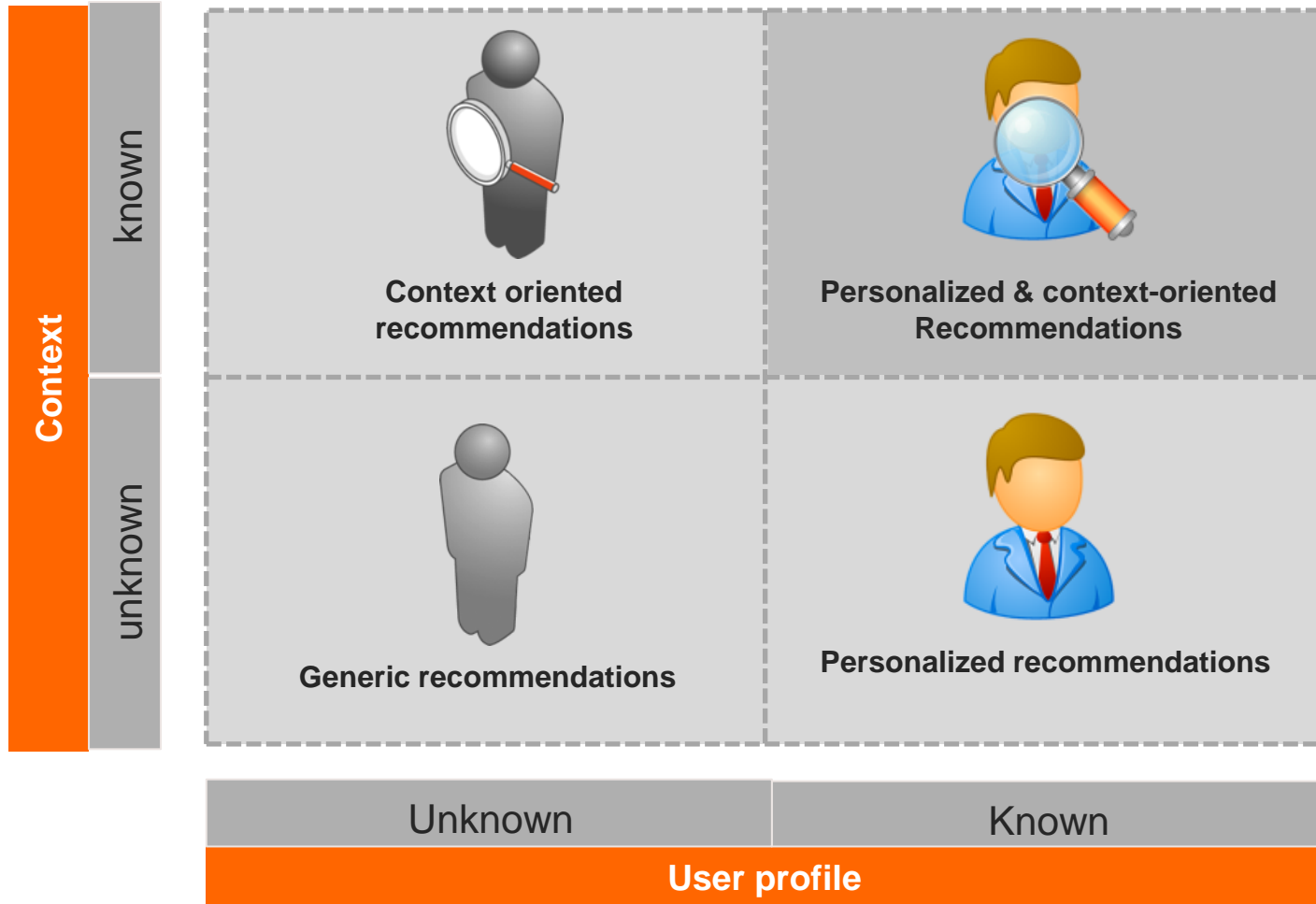
Brand overview



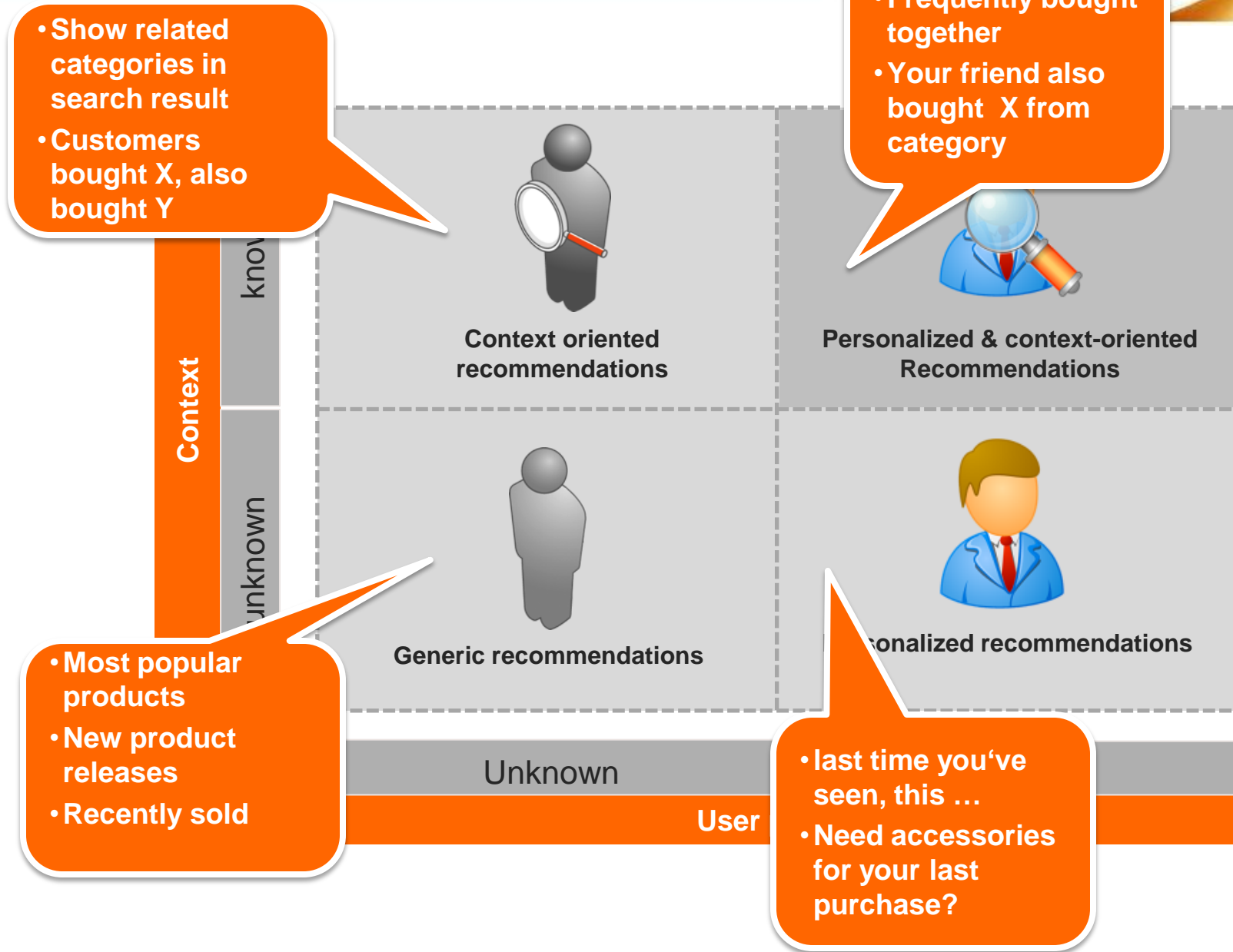
Product overview page



How personalization works ?
Successfully!



Classification



Design

raphies

» **Top New Releases in Books: Free Home Delivery** (View More)

Inheritance
★★★★☆ (85 ratings)

Diary Of A Wimpy Kid: Cabin Fever

Can Love Happen Twice
by Ravinder Singh

» **Bestselling Books at Flipkart.com** (View More)

Revolution 2020
★★★★☆ (1456 ratings)
by Chetan Bhagat
Rs. 148
Rs. 91 35%

Life Is What You Make It
★★★★☆ (248 ratings)
by Preeti Shenoy
Rs. 100
Rs. 65 35%

The Secret Of T...
★★★★☆ (301 ratings)
by Amish Tripathi
Rs. 295
Rs. 198 33%

MELUHA

STONY

On the category page

What Other Items Do Customers Buy After Viewing This Item?



That Used to Be Us: How America Fell Behind in the World It Invented and How We Can Come Back

★★★★☆ (68)

\$16.79

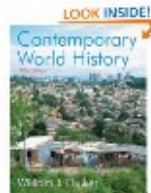


The World Is Flat [Updated and Expanded]: A Brief History of the Twenty-first Century by Thomas L. Friedman

★★★★☆ (1,079)

\$28.77

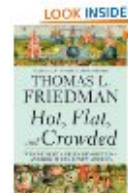
Customers Who Bought This Item Also Bought



Contemporary World History by William J. Duiker

★★★★☆ (2)

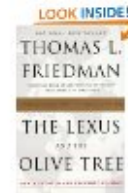
\$83.49



Hot, Flat, and Crowded: Why We Need a Green... by Thomas L. Friedman

★★★★☆ (30)

\$10.88

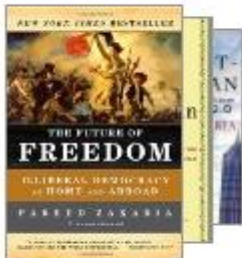


The Lexus and the Olive Tree: Understanding... by Thomas L. Friedman

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\$10.85

Customers Also Bought Item



Fareed Zakaria



Joseph E. Stiglitz

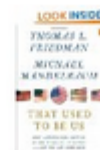
Malcolm Gladwell

Frequently Bought Together

Customers buy this book with **That Used to Be Us: How America Fell Behind and How We Can Come Back** by Thomas L. Friedman Hardcover **\$16.79**



+



Price For Both: \$25.67

[Add both to Cart](#)

[Add both to Wish List](#)

[Show availability and shipping details](#)

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My Cart (0 items)

Books

New Releases | Complete Collections | Pre-Order | Audio Books | Half Price | Booker Prize Winners | Bestsellers

> Books > Literature & Fiction > Historical > Alternative History > The Secret Of The Nagas

The Secret Of The Nagas (Paperback)
by [Amish Tripathi](#)
★★★★☆ 302 Ratings | [126 Reviews](#)

Publisher: Westland (2011)

Price: ~~Rs. 295~~ **Rs. 198**

Discount: ~~Rs. 97~~ **33% Off**
(Prices are inclusive of all taxes)

FREE Home Delivery

Buy This Now with an option to pay **Cash on Delivery**

30 DAY Replacement Guarantee Know More >

0% EMI Options ICICI, HDFC and Citibank Know more >

Customers Who Bought This Book Also Bought

The Immortals Of Meluha by Amish Tripathi Price: ~~Rs. 195~~ **Rs. 127** **35% Off**

The Immortals Of Meluha

On the product detail page

15% OFF on Diapers
Never run out of them

Upto **50% Cashback**
until 1st Dec, T&C's apply






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[Click Here](#)



- Top Selling Brands**
- Zero
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 - Nuby
 - Little Kangaroos
 - Pigeon
 - 1st Step
 - Funkskool
 - Premara
 - Morph Maternity
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 - Bodycare

 Buy Now. Pay Cash On Delivery  FREE Shipping on All Products  Best Price Guarantee

Our Best Sellers

 Pampers Disposable Diapers Medium 66 Pads(6-11kg) Our Price: ₹527	 Fisher Price EZ Bundle 4-IN-1 baby system + Fisher price walk and ride lion worth Rs 2999 free MRP: ₹10,999	 Carter's Mother touch Baby Bath MRP: ₹799	 Benetton Girl Basic Long Sleeve Signature Tee - Blue MRP: ₹549
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See Whats New



Based on sales data

Based on product data

www.babyoye.com/baby-diapering/diapers/pampers-active-baby-diapers.html



Features

1. Magic core: Great absorbency for dryness and helps prevent leakage
2. Soft cotton like outer cover: Soft touch with great breathability to help prevent skin irritation
3. Balloon stretch tapes: Expands and contracts for a good fit around the waist for your babies comfort and to help them easily.
4. Hypoallergenic lotion with aloe vera extract: Helps babies skin to prevent diaper rash.

Based on content data

Reviewed by 6 customer

Displaying Reviews -6 of 6

sort by:

Relevance

★★★★★ 5 stars By Aastha

Powered by: babyoye users

Best in Quality, 25 May 2011

Pampers Active baby are the best available diapers in market. I highly recommend it to every mother.

★★★★★ 5 stars By Sinta

Love the product, 29 April 2011

Been using Pampers diapers since my son just born and love it, very helpful and also comfortable for him. Tried other brand but cannot beat the thin n comfortable Pampers.

★★★★★ 5 stars By Rupanjali

Amazing Diapers, 18 February 2011

Hey

I have tried all diapers available in the market and have finally settled for the best.. this is the best diapers possible as my baby is extremely comfortable in them and can also stav drv

Products of other brands



Huggies Care Diapers

Huggies Care brings this great quality product at an unbelievable value thus making diapers affordable to every mom. Imported Super Absorbent Material absorbs all the wetness and keeps baby skin dry



Huggies Dry Pants

Pant diapers by Huggies for the babies on the move



Offer Price : **Rs. 33,500.00**

You Save: : **Rs. 9,890 (23%)**

Delivery Time : 4-7 Working Days

Warranty : 12 months



Norton Antivirus 2012 (1 User) + Adata 4GB USB 2.0 Pen Drive AC008 4G RKD

Buy It Now

You can order over phone and pay **Cash on Delivery**,
Call 0124 4901234

Similar Products



MSI CX623
Notebook (i3/2G...
Rs. 27,999.00

Details



Toshiba Satellite
C640-X4...
Rs. 31,200.00

Details

Recommended Accessories



Letsbuy Suggestion:

People also viewed following P



Nikon DSLR I
(Body Onl...
Rs. 126,0

Details



Canon EOS 5
with (EF S...
Rs. 55,28

Details

On the product detail page

Processor (2nd Generation), plus genuine Windows 7 Home Basic and a NVIDIA graphics card, which dynamically allocate resources where they're needed most. There's even a stylish Island keyboard, so typing is much more comfortable and error-free!

Top

Additional Customer Reviews

No reviews available for this product. Be the first one to write the review!

Write Review | Top

People who viewed this also purchased



Sony Home Theat...
Rs. 15,490.00



Samsung Galaxy ...
Rs. 28,499.00



iball Clarity H...
Rs. 140.00



Fujifilm Finepi...
Rs. 12,999.00

Recently Sold

People also viewed following Products



Apple MacBook
(Core 2 Duo...
Rs. 71,399.00

[Details](#)



Sony VAIO F Series
VPCF13...
Rs. 68,590.00

[Details](#)



Sony VAIO S Series
VPCSB1...
Rs. 68,590.00

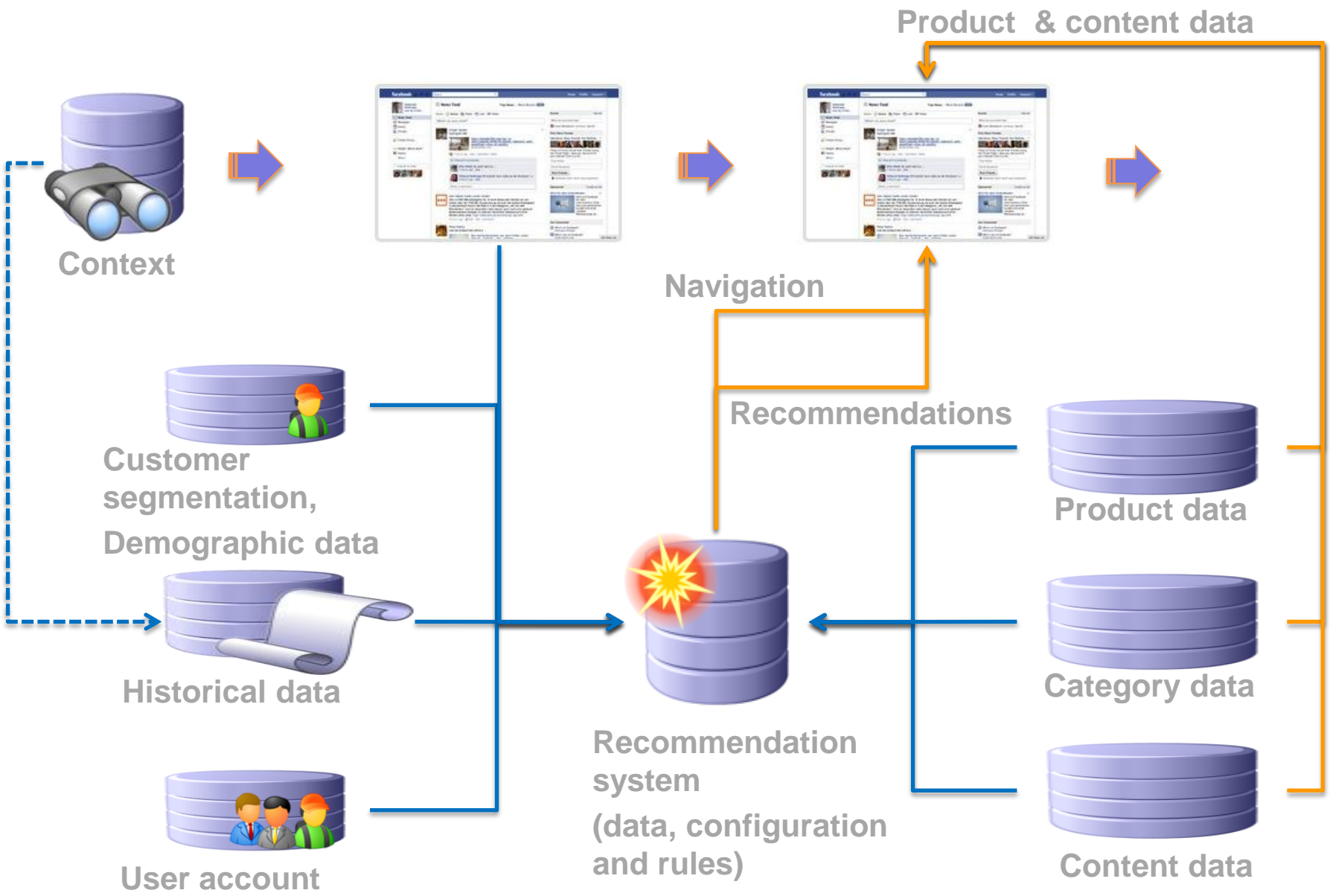
[Details](#)

Feedback

- ▶ For Further Business enquiries, [contact us](#).
- ▶ To Share Your Suggestions, [Click here](#)

On the product detail page

- **Explicit data (directly given by user)**
 - Preferences given by user
 - Ratings and reviews
 - Social media profile
 - Order history
- **Implicit data (indirectly given by user)**
 - Surf behavior (previous or real-time, e.g. „products browsed“)
 - Context (Search term, click-path, current shopping cart)
 - Response on online marketing
 - Order history
- **Other data**
 - Demographics
 - Products & Content

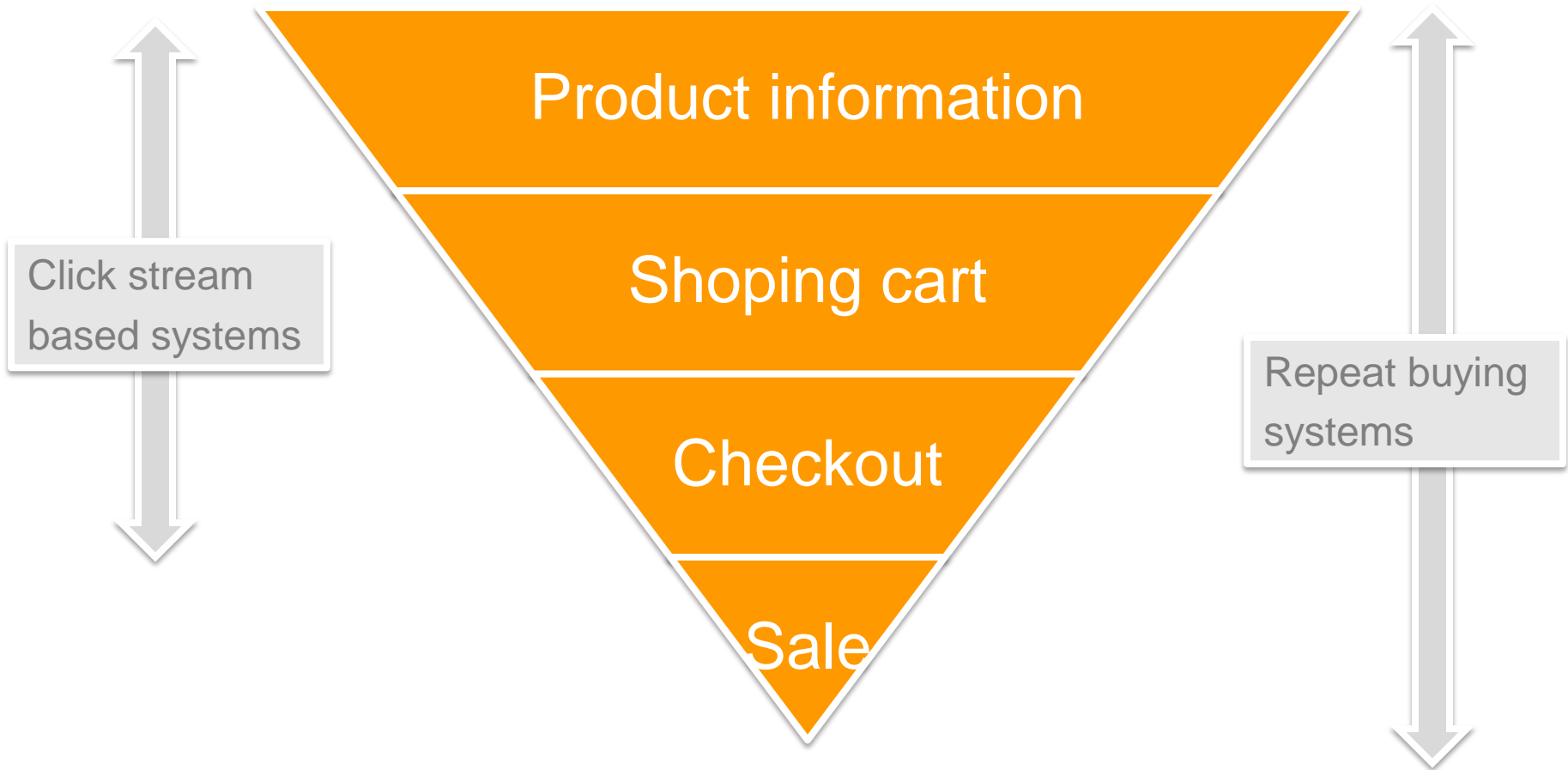


Click stream based systems

- real time data
- real time output
- self-adopting behavior
- API integration required
- high dependencies
- Minimized data

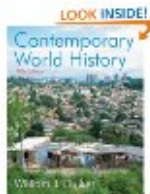
Repeat buying systems

- Historical data
- Pre-rendered output
- Asynchronous integration
- Easier to configure/maintain
- Slow reaction time
- Huge data





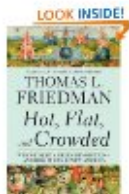
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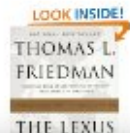
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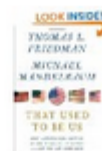


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Customers buy this book with That Used to Be Us: How America Fell Behind and Come Back by Thomas L. Friedman Hardcover \$16.79



+



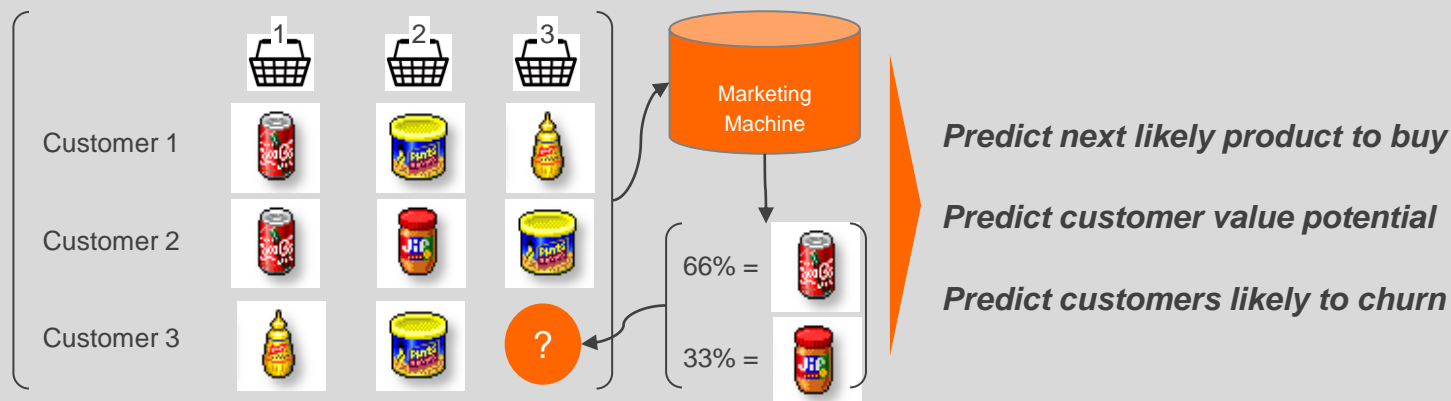
Price For Both: **\$25.67**

 Add both to Cart

 Add both to Wish List

[Show availability and shipping details](#)

Mathematical Modeling to improve Targeting



Challenges

- Large product portfolio
- Changes in product portfolio
- Long-Tail effect
- Long learning time



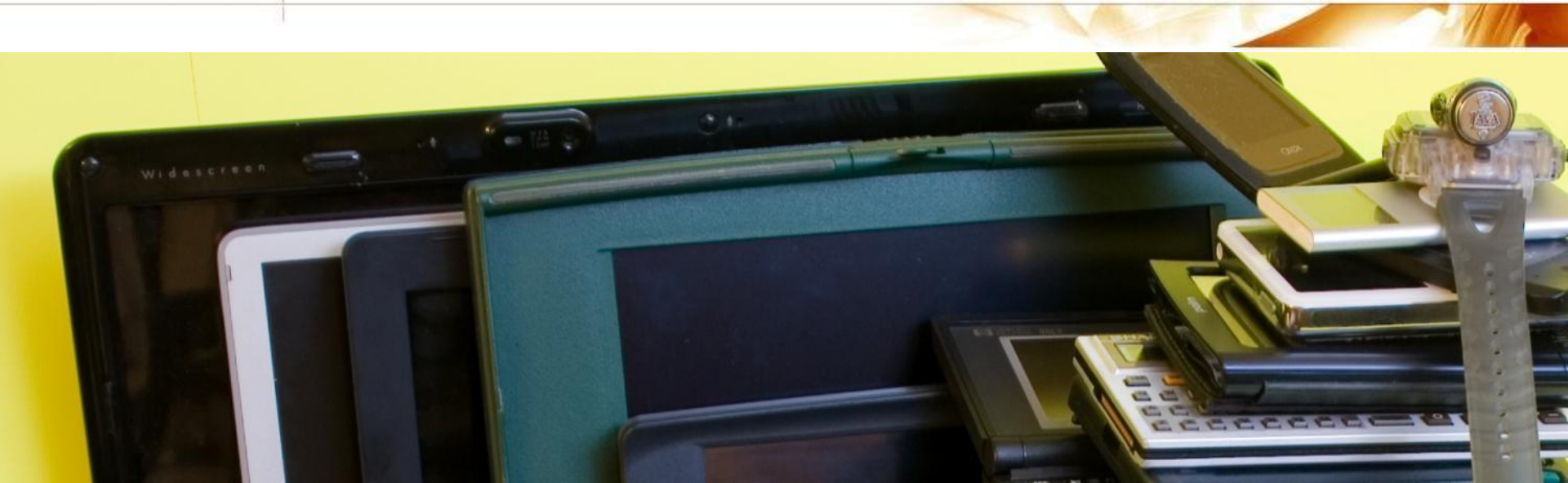
- in 60% + of cases the recommendation is inaccurate
- in > 20% + of cases **Topseller** are shown
(self fulfilling prophecy)

Solutions

- Adding historical data
- Adding personalization
 - e.g. shopping cart analysis within a segmented consumer cluster
- Change of scenarios
 - e.g. "customers who bought X, also browsed Y"
- Manual overwrite

Keep options in mind!

- Why?
 - Temporary promotion of specific products/categories
 - Prevent inappropriate combinations
- Criterias
 - Product attributes (e.g. categories, Price, Color)
 - User profiles (e.g. Gender, Revenue history)
 - Time (e.g. daytime, month, season)
 - etc.



Overview of solution approaches and how to choose a solution

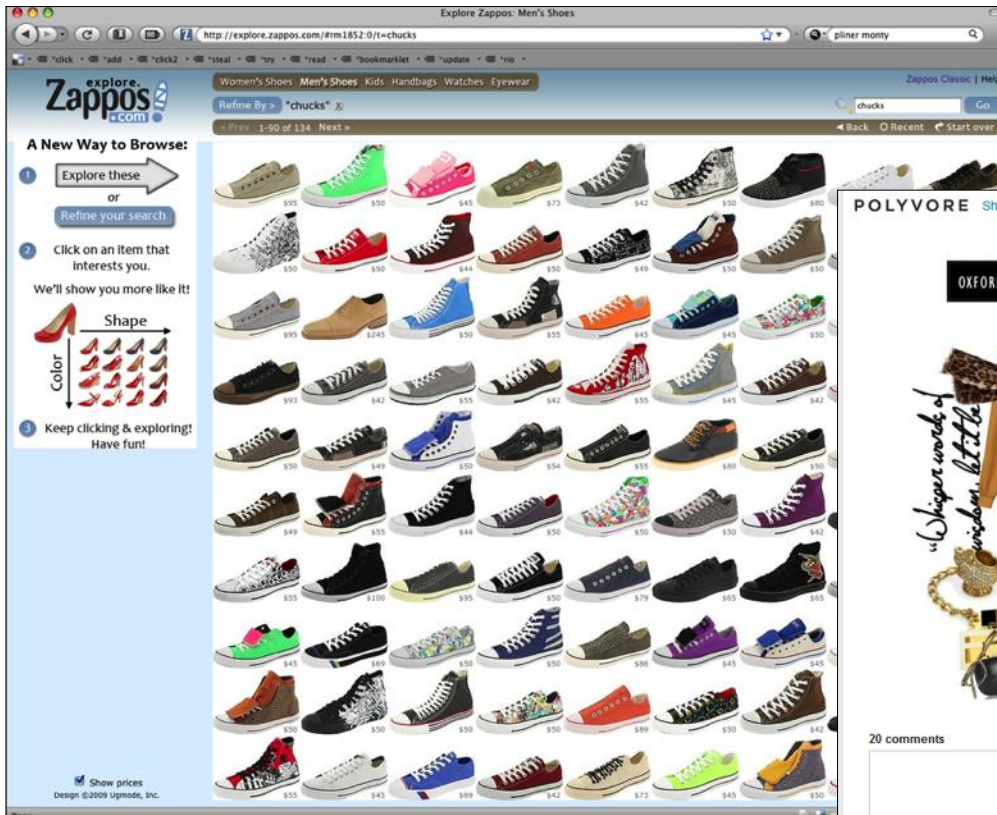
- ✓ Support for **various recommendation types** (lists, banner control, newsletter)
- ✓ Self learning system, **minimized manual effort**
- ✓ Gives recommendation even after big changes in product portfolio
- ✓ Allows **manual overwrite**
- ✓ Easy to configure: rules, filters, other logic
- ✓ High performance and scalability
- ✓ Integrated **performance tracking and analysis** (e.g. A/B test integration)
- ✓ Able to handle multi-category-assignments of products
- ✓ Able to handle **situation of "sparse data"** (e.g. in long tail and new products releases)
- ✓ Support of multiple channels (e.g. in call center, mobile app, POS, etc.)

- **ATG / Oracle**
(www.oracle.com/us/products/applications/atg/index.html)
- Baynote (www.baynote.com)
- SDL / Fredhooper (www.fredhopper.com)
- **Certona (www.certona.com)**
- **prudsys (www.prudsys.com)**
- Epoq (www.epoq.de)
- Istobe (istobe.com/product-recommendations.html)
- Avail (www.avail.net)
- Prediggio (web.prediggio.com/product-targeting.html)
- Omikron Fact-Finder (www.fact-finder.com)
- 4-tell (www.4-tell.com)
- Personyze (www.personyze.com)
- Strands (recommender.strands.com/tour)
- youchoose (www.yoochoose.com)
- **EasyRec (www.easyrec.org) , open source !!!**

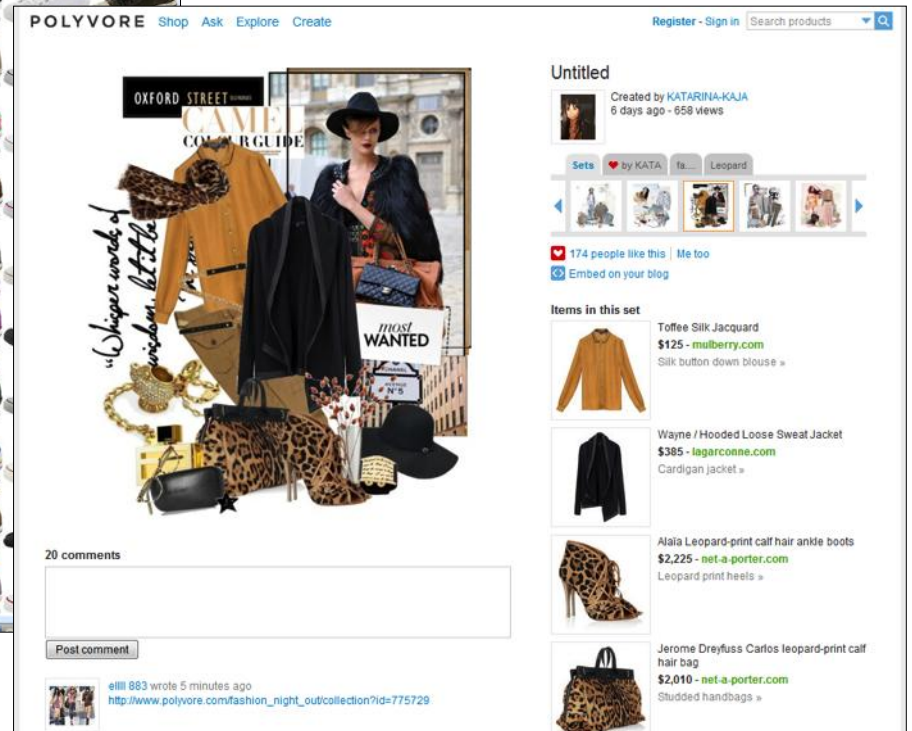


Future of personalization in the web

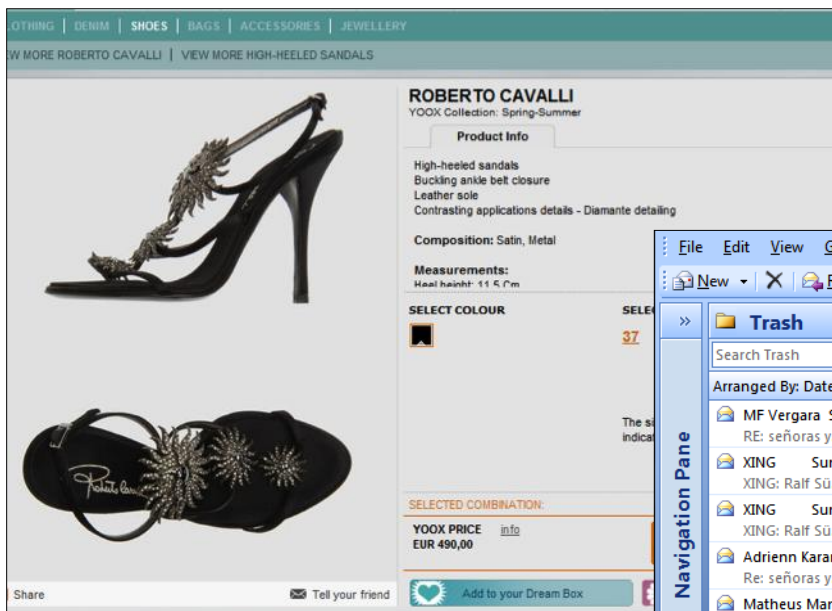
Dynamic navigation



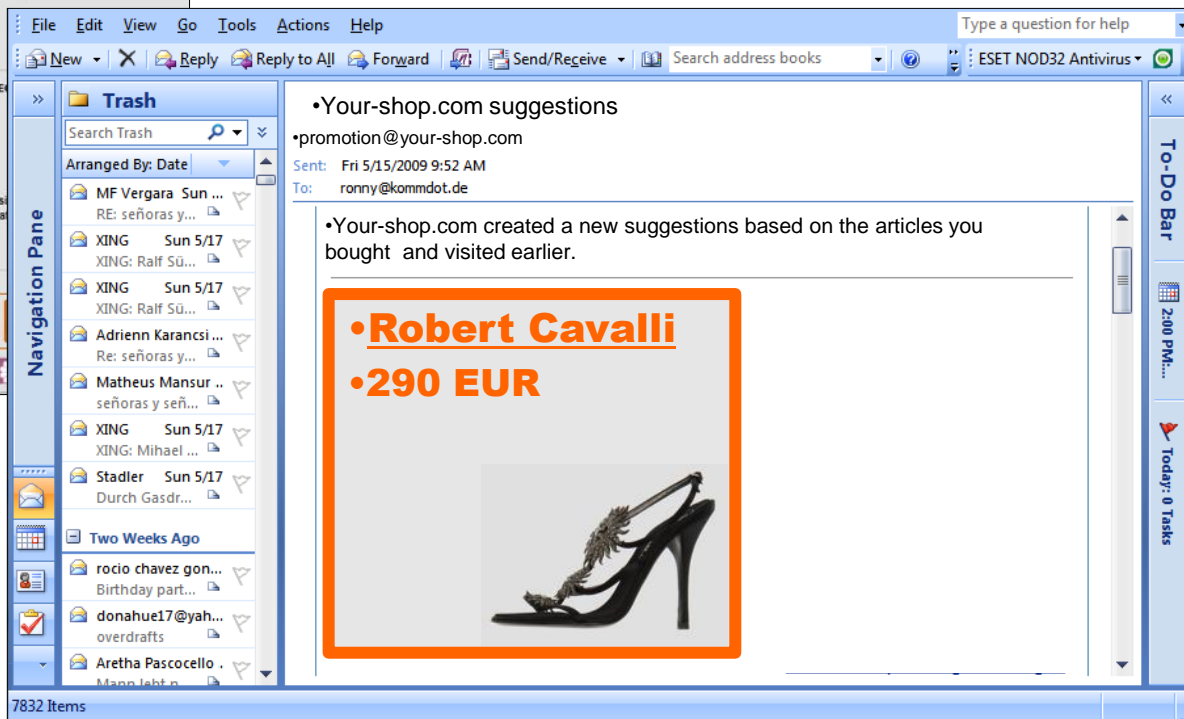
Combined with user generated recommendations



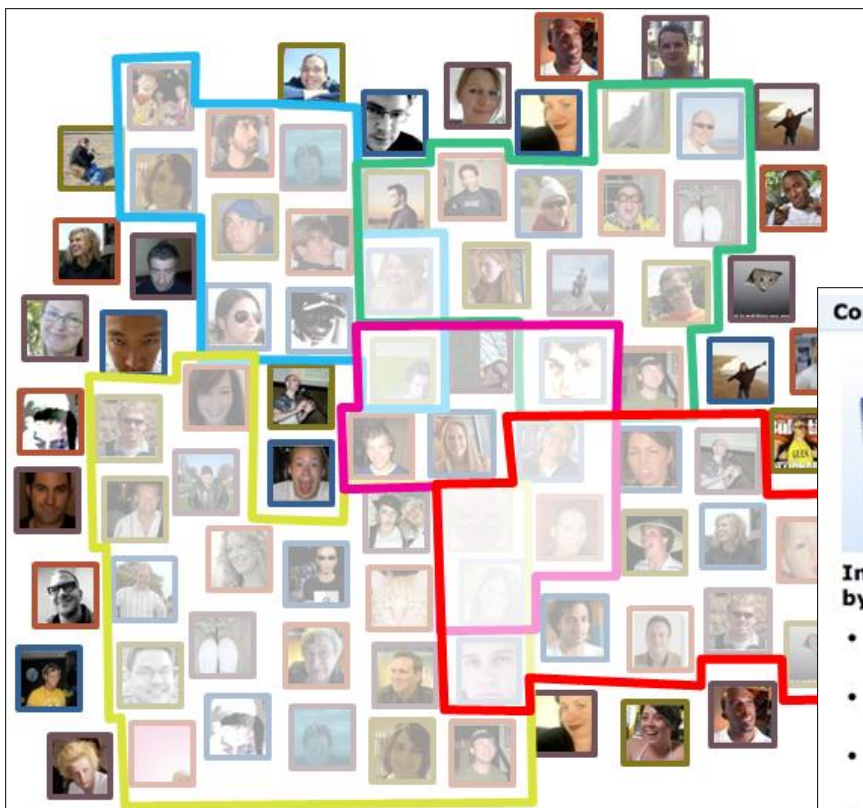
User leaves your website...



...and gets your newsletter



Analyzing user profile and friend profiles



Connect Amazon and Facebook

Close X



Improve your Amazon shopping experience by tapping into your Facebook network.

- Discover Amazon recommendations for movies, music, and more based on your Facebook profile.
- See upcoming birthdays and find your Facebook friends' Amazon Wish Lists more easily.
- Get gift suggestions for your friends based on their Facebook profiles.
- Explore your friends' profiles and see who has similar interests.

 [Connect with Facebook](#)

(You will be asked to approve this connection)

Your personal Amazon data will not be shared with Facebook.

- Amazon *will not* share Your Account information with Facebook.
- Amazon *will not* share your purchase history with Facebook.
- Amazon *will not* attempt to contact your Facebook friends.

- Why not use personalized recommendations for within your TV ?
- Recommend restaurant based on your location ?
- Recommend (external) service offerings for products ?
(e.g. individual configuration of PC)
- Include recommendations in banking portal ?
(www.sify.com/news/citibank-enhances-its-online-banking-news-business-litkJDajggg.html)



Answers questions like:

- Customers who bought this also bought that
- People from my city also bought that
- Interesting products for today (weather, breaking news, birthday of a friend, ...)
- **My friends like**
- **Other customers with my interests also like**
- **My best friend likes**

Recommendation **works best** on home page and landing pages.

Also keep advantages for **post sales** activities in mind.

Check software solutions thoroughly, and **test drive** the solutions.

Recommendation can solve your **conversion problem** while increasing sales **by over 25%**.

- E-Commerce service company since 1995
- e-commerce projects in 30+ countries (incl. Europe, US, Australia, India, Japan)
- Responsible for ...
 - 100+ Webshops
 - **1.000.000.000+ USD**
E-Commerce Order Volume/year
 - **5.000.000+**
E-Commerce Transactions/year
- 350+ employees in Stuttgart (HQ) and Berlin, Germany
- 125+ employees in Bangalore
- Offering Online Commerce services in India and overseas
 - consulting
 - design
 - technology
 - hosting
 - shop management
 - online marketing (SEO, SEM, SMM)

- **# 1: E-Retailing - A perfect storm in India**
- **# 2: Essence of Retail e-Commerce and its optimization**
- **# 3: SEO - More Visibility, More Traffic & More Sales for free?**
- **# 4: Social Media Marketing**
- **# 5: Customer Acquisition & Retention**
- **# 6: Mobile Commerce for Retailers**
- **# 7: Online Retailing using facebook**
- **# 8: Multi-Channel Retailing**



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www.smarte-commerce.com

www.linkedin.com/companies/embitel

www.facebook.com/EmbitelTechnologies

www.twitter.com/embitel

Thank you for your interest!

Any questions?



<http://www.cs.umd.edu/~samir/498/Amazon-Recommendations.pdf>

<http://www.vcbytes.com/tag/recommendation-engine>

<http://blog.sematext.com/tag/recommendation-engine/>

http://en.wikipedia.org/wiki/Collaborative_filtering

http://www.readwriteweb.com/archives/5_problems_of_recommender_systems.php

<http://www.tvgenius.net/solutions/recommendations-engine-tv-video/>