Building Retail Website Taxonomies
Not as Easy as it Seems

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Introduction to Retail Taxonomies

Characteristics of general retail/ecommerce taxonomies

- Separate hierarchy for each product category or department
  - Typically 5 – 20 hierarchies/top terms
  - Typically 3 – 20 terms/categories per level
- Simple hierarchy, with no nonpreferred terms
- Hierarchy depth typically of 3-5 levels
- Facets may exist at lower levels of the hierarchy.
- Related terms (*See also* relationships) may/may not exist.
- Ordering is not always alphabetical (rather popular or logical).

Introduction: Hierarchies

Walmart 12

See All Departments

- Electronics & Office
- Movies, Music & Books
- Home, Furniture & Outdoor
- Apparel, Shoes & Jewelry
- Baby & Kids
- Toys & Video Games
- Sports & Fitness
- Auto & Home Improvement
- Photo
- Crafts & Party Supplies
- Pharmacy, Health & Beauty
- Grocery & Pets

BEST BUY Search by Keyword.

PRODUCTS ⌄   **SERVICES**

10

- TV & Video
- Audio
- Mobile Phones
- Cameras & Camcorders
- Computers
- GPS, Car & Marine
- Office Products
- Movies, Music & Instruments
- Video Games
- Home & Appliances

amazon.com 16

Shop All Departments

- Unlimited Instant Videos ›
- MP3s & Cloud Player ›
  15 million songs, play anywhere
- Amazon Cloud Drive ›
  5 GB of free storage
- Kindle ›
- Appstore for Android ›
  Get Roller for free today
- Digital Games & Software ›
- Audible Audiobooks ›
- Books ›
- Movies, Music & Games ›
- Electronics & Computers ›
- Home, Garden & Tools ›
- Grocery, Health & Beauty ›
- Toys, Kids & Baby ›
- Clothing, Shoes & Jewelry ›
- Sports & Outdoors ›
- Automotive & Industrial ›

sears 20

DEPARTMENTS

- Appliances
- Automotive & Tires
- Baby
- Beauty
- Bed, Bath & Home
- Books & Magazines
- Clothing
- Electronics & Computers
- Fitness & Sports
- Home Services
- Jewelry & Watches
- Lawn & Garden
- Music, Movies & Games
- Office Products
- Outdoor Living
- Replacement Parts
- Shoes
- Tools
- Toys & Games
- Clearance

LANDS' END 10

WOMEN   MEN   GIRLS   BOYS   SWIM   OUTERWEAR   SHOES   SCHOOL UNIFORMS   FOR THE HOME   LUGGAGE

14+

3

Women | Men | Baby | Kids | Shoes | Beauty | Home | Bed + Bath | Kitchen + Dining | Furniture | Patio | Toys | Electronics | Movies | See More

Electronics & Office

Movies, Music & Books

Home, Furniture & Outdoor

Apparel, Shoes & Jewelry

Baby & Kids

Toys & Video Games

Sports & Fitness

Auto & Home Improvement

Photo

Crafts & Party Supplies

Pharmacy, Health & Beauty

Electronics
Auto Electronics
Cameras & Camcorders
Cell Phones & Services
Computers
GPS & Navigation
Home Audio & Theater
iPad & eReaders
iPods & MP3 Players
Office
TV & Video
Video Games

Computers
Desktops
Laptops
Monitors
Networking
Printers & Supplies
Tablet PCs
See all

Office
Office Furniture
Office Supplies

Women | Men | Baby | Kids | Shoes

Activewear
Clothing
Dresses
Handbags + Accessories
Intimates
Jeans
Jewelry
Juniors'
Maternity

Outerwear
Pants
Petites
Plus Size
Shoes
Sleepwear
Swimwear
Tops

Clearance
New Arrivals
Weekly Deals

PRODUCTS ⌄ | **SERVICES ⌄** | **SHOPS & DEALS ⌄**

TV & Video ›
Audio
Mobile Phones
Cameras & Camcorders
Computers & Tablets
GPS, Car & Marine
Office Products
Movies, Music & Instruments
Video Games
Home & Appliances

TVs
Projectors & Screens
Blu-ray & DVD Players
Home Theater Systems
Internet Connectable & Smart TV
Digital TV Converters
DIRECTV, TiVo & Cable TV
Stands, Mounts & Furniture
Portable TV & Video
TV & Home Theater Services
Accessories

4

FOR THE HOME | **LUGGAGE** | OVERSTOCKS

NEW ARRIVALS
FLIGHTWISE LUGGAGE
LIGHTHOUSE LUGGAGE
CARRY-ON LUGGAGE
WHEELED LUGGAGE
DUFFEL BAGS
KIDS' BACKPACKS, LUNCH BOXES & LUGGAGE
TOTES
TOILETRY KITS & TRAVEL ACCESSORIES
BRIEFCASES & LAPTOP BAGS
DIAPER BAGS

Introduction: Facets

- Facets are for narrowing categories that are similar and support the same kinds of attributes.

- Facets work well for (retail) products that are sufficiently similar: all shoes, all luggage, all laptop computers.

- Facets may be:

  - the only type of taxonomy on a specialized retail site, or

  - appear at lower (more specific levels) of a general retail site.

Introduction: Facets

Column 1

Format
- ☐ Paperback (386,973)
- ☐ Hardcover (240,008)
- ☐ Kindle Edition (17,788)
- ☐ Audible Audio Edition (151)
- ☐ HTML (15,520)
- ☐ PDF (13,078)
- ☐ Audio CD (529)
- ☐ Board Book (296)
- ☐ Audio Cassette (413)
- ☐ Calendar (1,823)
- ☐ School Binding (481)
- ☐ MP3 CD (27)

Author
Any Author
- David S. Moore (525)
- Ron Larson (518)
- Charles Darwin (464)
- Margaret L. Lial (388)
- David Halliday (295)
- Deborah Hughes-Hallett (221)
- E. John Hornsby (219)
- › See more...

Series
Any Series
- Unleashed (94)
- Sams Teach Yourself (81)
- Apogee Books Space (56)
- Essentials (51)
- Mathstart (48)
- Oxford Logic Guides (46)
- Demystified (42)
- › See more...

Shipping Option (What's this?)
Any Shipping Option
- Free Super Saver Shipping

Column 2

Brand
- HP (44)
- Toshiba (21)
- ASUS (19)
- Dell (18)
- Sony (14)
- Samsung (12)
- Apple® (12)
- Lenovo (7)
- **See all...**

Price Range
- Less than $600 (72)
- $600 - $899 (47)
- $900 - $1199 (24)
- $1200 - $1799 (19)
- $1800 and Up (7)

Status
- New Arrivals (23)
- Pre-Order (2)

Screen Size
- 17" and Up (30)
- 15" - 16" (81)
- 14" and Under (58)

Laptop Features
- 3D-Ready (2)
- Backlit Keyboard (22)
- Best Buy PC App (39)
- Blu-ray (33)
- Built-in Webcam (163)
- ENERGY STAR Qualified (136)
- HDMI Output (137)
- Wireless Capability (53)

Column 3

Target : Furniture : Kitchen + Dining Room

Narrow by

Category ⌄
Select category(s)   Clear
- ☐ Banquet Tables (4)
- ☐ Bistro Table (2)
- ☐ Bistro Tables (5)
- ☐ Counter-Height Table (1)
- ☐ Counter-Height Tables (6)
- ☐ Dining Table (10)
- ☐ Dining Tables (52)
- ☐ Folding Table (8)
- ☐ Folding Tables (12)
- ☐ Kitchen Table (1)
- ☐ Kitchen Tables (1)
- ☐ Nook Table (1)
- ☐ Nook Tables (1)
- ☐ Pub Table (7)
- ☐ Pub Tables (29)

Material ⌄
Select material(s)   Clear
- ☐ Hardwood (29)
- ☐ MDF Composite (1)
- ☐ Metal (28)
- ☐ Plastic (1)
- ☐ Wood (48)
- ☐ Wood Composite (35)

Finish ⌄
Select finish(s)   Clear
- ☐ Cherry (4)
- ☐ Dark Cherry (1)
- ☐ Ebony (1)
- ☐ Espresso (14)
- ☐ Mahogany (5)
- ☐ Natural (7)
- ☐ Oak (7)
- ☐ Painted (8)
- ☐ Unfinished (1)
- ☐ Walnut (8)

Color ⌄

Column 4

Homepage > Women > Shirts &

« return to Women

Shirts & Blouses »
- Long Sleeve (28)
- 3/4 Sleeve (13)
- Short Sleeve (8)
- Sleeveless (9)

Narrow Selection By:

Size Range
[Show All ▲▼]
(Reg, Plus, Slim, Big & Tall, etc.)

Specific Size
[Show All ▲▼]

Color
[Show All ▲▼]

Sleeve Length
[Show All ▲▼]

Fabric
[Show All ▲▼]

Style
[Show All ▲▼]
- Show All
- All Others (56)
- Casual (51)
- Tailored (11)
- Buttondown (6)
- Split Neck (3)

Retail Taxonomy Challenges

- Different categorization methods and category cross-overs
- Whether to sort alphabetically or not
- Web site vs. physical store organization
- Business needs vs. taxonomy standards/best practices

Challenges: Categorization and Cross-Overs

Examples:

- Women's Shoes – in Women's Clothing; in Shoes
- Office Furniture – in Office Products; in Furniture

Cross-over product examples:

- Home Theater – in TV/Video; in Audio/Stereo
- Smartphones – in Cell Phones; in PDAs
- Printer-Scanner-Faxes – in Printers; in Scanners; in Fax Machines

Other categorization challenges

- Music and Movies media separate or in with players/equipment
- Video Games in Toys & Games or in Electronics

Challenges: Categorization and Cross-Overs

Put in both locations – *Polyhierarchy*

OK, but…

- Too much polyhierarchy confuses the tree structure. Polyhierarchies work better for specific terms/categories at the lowest level or second-lowest with small sub-hierarchies, (e.g. Fitness GPS Watches in GPS Systems, in Portable Fitness Electronics, and in Watches), not large hierarchy branches.

- Systems may not fully support polyhierarchy, with breadcrumb trail reflecting a fixed path, not dynamic, not always the user's path.

Challenges: Categorization and Cross-Overs
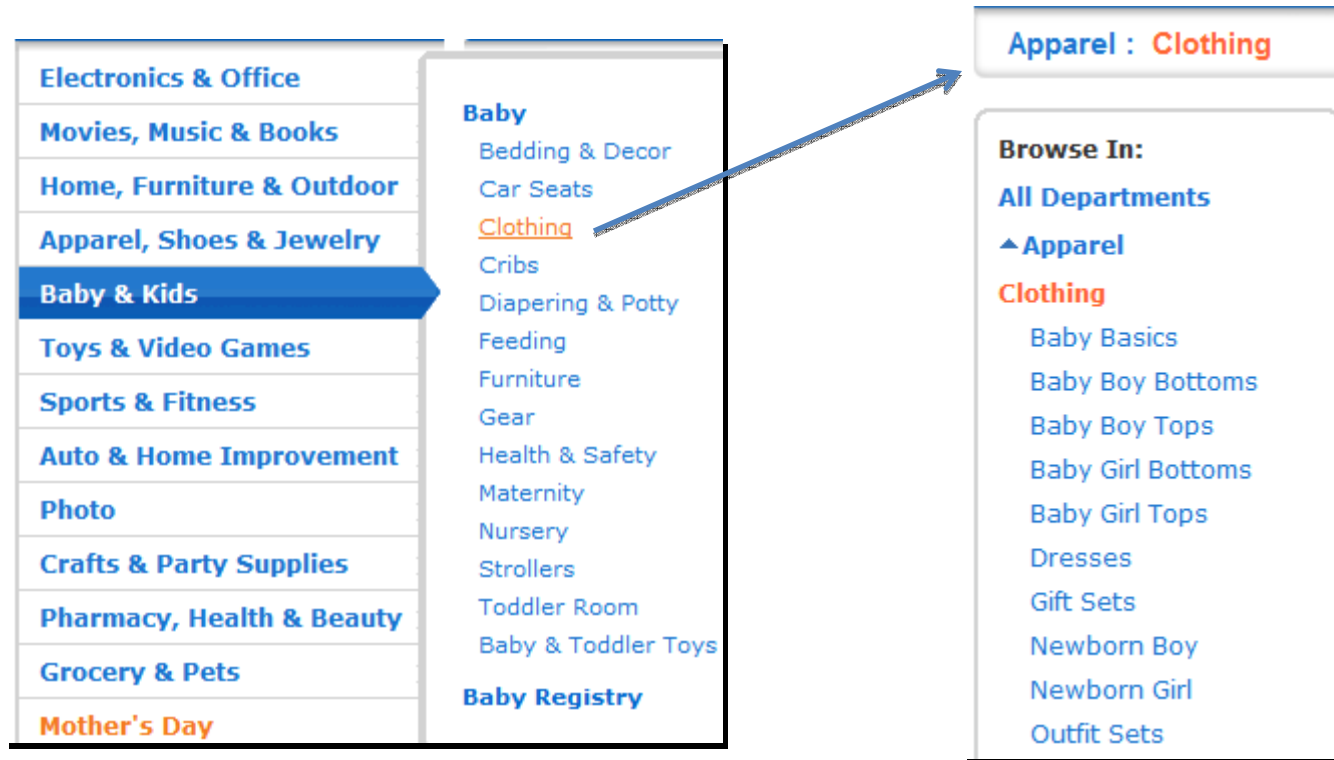
Breadcrumb trail may not reflecting the user's navigation path down the hierarchy, but rather only the other, one fixed hierarchy, path of the polyhierarchy.

Challenges: Display Order Choice

Could be alphabetical or could be "logical"

Shop By Category
- Accessories
- Camcorders
- Digital Picture Frames
- Digital Point & Shoot Cameras
- Digital SLR Cameras
- Memory & Media
- Photo Printers
- Security Cameras
- Web Cams

Cameras & Camcorders
- Accessories
- Camcorders
- Digital Cameras
- DSLR Cameras
- Film Cameras
- Web Cameras

- Digital Cameras
- Compact System Cameras
- Digital SLR Cameras
- Camera Lenses
- Camcorders
- Memory Cards
- Photo Printers
- Digital Photo Frames
- Webcams
- Binoculars & Optics
- Accessories

Digital Cameras
- Camera Bundles
- Digital SLR
- 14+ Megapixels
- 10-12 Megapixels
- 9 Megapixels + Under
- Long Zoom
- Film Cameras
- Waterproof

Camcorders
- Compact Digital
- DVD
- Flash Memory Digital
- Hard Drive +
- Memory Card
- High Definition
- MiniDV

Shop by Brand
- Canon
- FUJIFILM
- Flip Video
- JVC
- Kodak
- Nikon
- Olympus
- Polaroid
- Samsung
- Sony

Camera Accessories
- Bags + Cases
- Flashes + Lights
- Lenses

Challenge: Comparing with Physical Stores

There may be a push to organize the product taxonomy in conformity with store layout and organization.

- Loyal customers might understand it.
- But are customers divided by store loyalty or by physical storer vs. online shoppers?

Factors may be unique to physical stores:

- Newest/hottest products at the entrance
- Small accessories in the checkout lines
- Larger items in the back
- Use of ailse endcaps for featured items
- Creative use of physical space

Challenge: Business Needs vs. Best Practices

Possible taxonomy requests for "business needs" that challenge taxonomy standards or best practices:

- Placing accessories, services, or other related products in the position of narrower terms

- Creating new top level categories for relatively small, hot categories, that belong under existing top categories

- Creating multiple polyhierachies for a product category to help promote it

- Creating intermediate level categories to group and promote subcategories, not serve navigation

Challenge: Business Needs vs. Best Practices

Solution to taxonomy requests for "business needs" that challenge taxonomy standards or best practices:

- Create more than one navigation path
    1. Accurate hierarchies (such as in lefthand margin)
    2. Promotional categories (in central space)

Challenge: Business Needs vs. Best Practices

- List of next level categories may differ in the true taxonomy of the left hand navigation, compared with the central area.

Electronics

- Auto Electronics
- Cameras & Camcorders
- Cell Phones
- Computers
- GPS & Navigation
- Home Audio & Theater
- iPad & eReaders
- iPods & MP3 Players
- Office
- TV & Video

Related Categories

- Home Appliances
- Kids' Electronics
- Movies & TV
- Musical Instruments
- Video Games

Special Offers

- Clearance
- Rollbacks
- Special Buys
- Value Bundles

Shopping Tools

- Battery Finder
- Buyback Plan
- Electronic Trade-In
- Explore VUDU-enabled TVs
- Shop & Explore New

New Technology

3D TVs from $888.00

3D DVD Players

See the Difference and Save
Look for The Green Hornet™ on Blu-ray 3D™

3D TVs

3D TV Accessories

PAUSE 1 2 | See the Difference and Save

Free Shipping With Site to Store on Eligible Items

TVs — Laptops — Tablet PCs — iPods — Cameras

Featured Categories

Save on TV and Video Solutions

- TVs
- Home Theater Systems
- DVD Players

Everything for Your Laptop - for Less

- Laptops
- Cases & Bags
- Mice
- Printers

Top Values in Electronics

See all **Top Values in Electronics**

Conclusions

- Simple taxonomies are not always simple to create.
- Taxonomy design may be under constraints.
- Business needs can challenge taxonomy standards.
- Creative solutions may be needed.

Questions/Contact

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