Applying UI Design Patterns to Optimize Discovery

12-January-2010
Endeca UI Design Patterns: Addressing Key Search, Faceted Navigation, & Discovery Challenges

Where should we put the Guided Navigation and how should it be laid out to be as effective as possible?

How should we present mixed results sets to help our users successfully discover the most relevant and useful items?

How can we make suggestions while people are searching to accelerate discovery of the most relevant information?

How can we spotlight related information that we think might be valuable while enabling people to focus on their primary results?
Endeca UI Design Patterns: Key Components

**Problem Summary**

Users need to find a specific information target within the current filtered result set.

**Constraints & Challenges**

- Use when textual refinement is useful in discovering the information target.
- Use when the data set is large or rich enough that the risk of zero results is minimized.

**Solution Elements**

1. Provide separate search boxes for the search and search within functions. Visually group the search within box with the guided navigation refinement options and selected navigation filters (e.g., the Gridbox).
2. If the search and search within functions are shared by one box, clearly indicate that the Search within box performs a different function than the global search box with a clear label, e.g.,
   - "Narrow your search" or "Refine your results".
   - If a radio button is used to toggle the function of one textfield between Search and Search Within, make the distinction very clear with text and graphics.
3. Make a salient action button (e.g., "Search") adjacent to the text box.

**Related Patterns**

- Related Patterns

**Usages**

- Uses examples

**Examples**

- Visual examples
Sample Endeca UI Design Patterns

Searching:
- Simple Search Box
- Search with “Look Ahead” Navigation
- Search Within

Exploring & Refining:
- Breadbox
- Simple Guided Navigation - Vertical Stack
- Continuous Range Refinement - Range Slider
- Complex Dimension Combinations
- Simple Dimension Combinations
- Horizontal Guided Navigation - Single Select
- Open Horizontal Guided Navigation – with Multi-select

Evaluating & Interacting w/ Results
- Flexible Table - Results Set and Detailed View
- Reorder Results - Quick Sort
- Item Preview
- Mixed Content Results Segmented with Tabs
- Mixed Content Results with Spotlights

Proactively Highlighting Critical Info/Assets
- See Also Sidebar
- Results Spotlight

Personalizing & Enriching the Discovery Experience
- Personalized Launch Page
- Dynamic Landing Page
How to Apply UI Design Patterns: A Practical Process

UNDERSTAND

CREATE

EVALUATE

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Understand: Define & Review the Goals, Problems, & User Context

Business Goals
- Engagement
- Conversion
- Cross-Sell
- Adoption
- Acquisition

What are the business strategies, objectives, & priorities?

User Types
- Knowledgeable Enthusiast
- Uncertain Explorer

Who are the critical users and how do their discovery needs & behaviors vary?

Goals & Scenarios
- Find
- Learn
- Understand
- Discover
- Decide
- Etc.

What are business-user critical goals & scenarios? What do they need to know to succeed?

Assets
- Product info
- Rich Media
- Textual Info
- Relationship
- Community

What decision-discovery support and information assets will help them achieve their goals?

Modes of Interaction
- Locating
- Exploring
- Evaluating
- Comparing
- Sharing

How do people need to interact with information assets & each other to achieve their goals?
Understand: Select Relevant Design Patterns

Vertical Stack
Guided Nav

Multi-Select

Range Slider

Mixed Results w/Spotlights

Breadbox

You Have Chosen:
Ford (3 models)
Toyota (2 models)
*Clear All Selections

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Understand: Review the Relevant UI Design Patterns

Mixed Results with Spotlights

Solution Elements:

1. Mixed types of results are grouped together as a combined set (e.g., list)

   - Use icons or a simple visual system to differentiate types of content within the mixed results presentation
Evaluate: “Walk through” the designs/site based on scenarios & patterns

Push:
- Necessity
- Lifestyle Change

Knowledgeable Seeker

Trigger

Research

IDENTIFY

CONSIDER

Decide

PURCHASE

DISCOVER

Pull:
- Desire
- Opportunity

Uncertain Explorer

EXPLORE

SHARE

DISCOVER

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Applying UI Design Patterns

Quick Illustration

How well are we supporting our users’ discovery goals on our site today? How can we improve the experience and user-business outcomes?
Understand: User Car Classifieds Site

About SUVs

Attracting a wide range of drivers, SUVs offer a mix of cargo and passenger space. Choose a small SUV that’s more like a car or a large SUV with room for cargo and towing capabilities. Smaller versions of an SUV are less expensive and have better fuel economy but lack the cargo space and power that are characteristic to larger SUVs. You’ll find a range of sizes, options, and prices when shopping for an SUV.

Browse SUVs

By Year Range:
- 2005 and earlier
- 2000-2004
- 1995-1999
- 1990-1994
- 1980-1984
- 1970-1979
- 1960-1969
- 1950-1959
See all year ranges...

By Mileage:
- Less than 10,000 miles
- Less than 20,000 miles
- Less than 30,000 miles
- Less than 50,000 miles
- 20,000 miles and more
- 30,000 miles and more
See all Mileages...
Understand: User Car Classifieds Site

Business Goals
- Acquire, Engage, and Retain Buyers & Sellers
- Conversion: Qualified car buyer leads

User Types
- Knowledge-able Car Enthusiast
- Uncertain Car Buyer

Goals & Scenarios
- I want to find and buy a <specific car>
- I need a car that meets my family’s needs

Assets
- Car descriptions, specs, photos, location
- Articles
- Reviews-ratings

Modes of Interaction
- Locating
- Exploring
- Evaluating
- Comparing
- Sharing
Understand: Select & Review Relevant Design Patterns

Searching:
✓ Simple Search Box
✓ Search with “Look Ahead” Navigation
✓ Search Within

Exploring & Refining:
✓ Breadbox
✓ Guided Navigation - Vertical Stack
✓ Multi-Select Dimensions
  ▪ Guided Navigation – Open Horizontal (w/without multi-select)
✓ Continuous Range Refinement - Range Slider
  ▪ Complex Dimension Combinations

Evaluating & Interacting w/ Results
✓ Flexible Table (toggle list-gallery)
✓ Reorder Results - Quick Sort
✓ Item Preview
  ▪ Mixed Content Results Segmented with Tabs
  ▪ Mixed Content Results with Spotlights

Proactively Highlighting Critical Info/Assets
✓ See Also Sidebar
✓ Results Spotlight

Personalizing & Enriching the Discovery Experience
✓ Personalized Launch Page
✓ Dynamic Landing Page
**Understand**: Review Relevant Design Patterns

### Vertical Stack Guided Nav

You Have Chosen:
- Ford (3 models)
- Toyota (2 models)
- Clear All Selections

Refine Your Search By...

- Keyword Search
  - Make & Model
  - Years
- Body Type
  - Sedan
  - Hatchback
  - Estate
  - MPV
  - Coupe
  - Cabriolet
  - Commercial
  - Other
- Price Range
- Fuel Type

### Breadbox

You Have Chosen:
- Expert Score: Any
- User Rating: Any

Body:

### Range Slider

- Expert Score: Any
- User Rating: Any

### Multi-Select

- Body Type
  - Sedan
  - Hatchback
  - Estate
  - MPV
  - Coupe
  - Cabriolet
  - Commercial
  - Other
- Price Range
- Fuel Type

### Mixed Results w/Spotlights

- Search Look-Ahead
  - Anti-Vibration Gloves
  - Canvas, Jersey, and Chore Gloves
  - Cold-Condition Gloves
  - Cryogenic Gloves and Aprons
  - Cut and Sewn Gloves
  - Cut-Resistant Gloves and Sleeves

### Spotting

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**Evaluate**: Apply Scenarios & Patterns > Issues & Opportunities

- **Knowledgeable Seeker**: I'm looking for a 1999 Citroen cup...

- **Uncertain Explorer**: I'm looking for an affordable family car that gets good mileage...

- **Vertical Stack GN**
  - **Keyword Search**: ag, GTI, Sport, Sedan, New, Air bag
  - **Makes & Models**
  - **Year**
  - **Body Type**
    - Saloon (527)
    - Hatchback (1,416)
    - Estate (173)
    - MPV (34)
    - Coupe (5)
    - Cabriolet (36)
    - Commercial (34)
    - Other (42)
  - **Price Range**

- **Multi-Select**
  - **Body Type**
    - Saloon (527)
    - Hatchback (1,416)
    - Estate (173)
    - MPV (34)
    - Coupe (5)
    - Cabriolet (36)
    - Commercial (34)
    - Other (42)
  - **Price Range**
  - **Fuel Type**

- **Breadbox**
  - **You Have Chosen**:
    - Ford (3 models)
    - Toyota (2 models)
  - **Clear All Selections**
Evaluate: Initiating Search & Exploration
**Evaluate:** Initiating Search & Exploration

+ 3 ways to initiate search supports varied users & discovery scenarios

+ Auto-suggest/Look Ahead Search is well executed

+ Visual “Browse by Type” is valuable
  - But mixes dimensions/attributes (“collector”, fuel, body type)

+ Parametric drop down is familiar and useful for targeted “locate” scenario
  - But hides options/attribute values
  - no record counts as “info scent”
  - Doesn’t enable exploration across multiple facets/attributes
Evaluate & Create: Initiating Search & Exploration

- Missed opportunities:
  - Use **Vertical Guided Nav** to simplify the interface AND enable users to initiate exploration via additional facets/attributes (e.g., fuel type, price, etc.)

  - Enable **Multi-Select** within key facets to enable users to create useful “unions” (e.g., across makes/models) and comparisons across subcategories.
**Evaluate:** Presenting, Exploring, & Modifying Results

**About SUVs**
Attracting a wide range of drivers, SUVs offer a mix of cargo and passenger space. Choose a small SUV that’s more like a car or a large SUV with room for cargo and towing capabilities. Smaller versions of an SUV are less expensive and have better fuel economy, but lack the cargo space and power that are characteristic to larger SUVs. You’ll find a range of sizes, options, and prices when shopping for an SUV.

**Browse SUVs**
- **By Year Range:**
  - 2005 and newer
  - 2000-2004
  - 1995-1999

- **By Mileage:**
  - Less than 10,000 miles
  - Less than 20,000 miles
  - Less than 35,600 miles

- **By Engine:**
  - 4 Cylinder
  - 6 Cylinder
  - Greater than 6 Cylinders

- **By Make:**
  - Acura
  - Audi
  - BMW
  - Buick
  - Cadillac
  - Chevrolet
  - Chrysler
  - Dodge
  - Ford
  - GMC
  - Honda
  - Hyundai
  - Infinity
  - International Harvester
  - Innoce
  - Isuzu
  - Jeep
  - Kia
  - Land Rover
  - Lexus
  - Lincoln
  - Lincoln
  - Mitsubishi
  - Nissan
  - Oldsmobile
  - Pontiac
  - Porsche
  - Saturn

**Find:**
- Include make and description
- Related searches: Ford, no reserve, Honda accord, compatible, camry, snow tires
- See this category

**Model Year:**

**Find Local Vehicles**
- Show only vehicles within
- miles of

**Refine search**
- Body Type
- SUV
- Compare
- Price
- Year
- Mileage
- Distance
- Make
- Model
- Options
- Sort by

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Understand: Review Relevant Patterns

Vertical Stack GN

Multi-Select

Breadbox
You Have Chosen:
- Ford (3 models)
- Toyota (2 models)

Range Slider

Sidebar Spotlight

Segmented Results w/Tabs

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Evaluate: Browse and Refine

- **Guided Nav** presentation is text heavy & inefficient with multiple issues:
  - risks info overload
  - risks user missing significant options (which occur beneath the fold)
  - no current flexible display of dimensions
    - e.g., *expandable-collapsible stack*
  - No **Multi-select** enabled

- Year & Mileage --quantitative facets -- are presented as discrete textual options (without Multi-select)
  - missed opportunity to enable user via visual continuous **Range Slider**
Evaluate: Apply Relevant Patterns

- Mixed, poorly integrated and potentially confusing Search & Guided Nav (refinement) options

  Use of Segmented Tabs & Local Classifieds filter is redundant and likely to be ineffective
  - Consider presenting as radio button filter options or Guided Nav dimension

★ Opportunity: Consider Sidebar Spotlighting to provide user/business value
  ★ E.g., Top Dealers, Newest Listings, Related Reviews/Articles, etc.)
Key Takeaways

- **Understand** the search & discovery context to select potentially relevant design patterns:
  - One size does not fit all: Varied problems require varied solutions

- **Evaluate** search & discovery UIs by apply UI design patterns **holistically** and **flexibly**
  - Identify both potential ISSUES and OPPORTUNITIES

- **Create** search & discovery user interfaces informed & inspired by patterns

- Use patterns as a starting point & evaluative lens
  - **NOT as a substitute** for sound user research, user testing, & UI design
  - **NOT as an inhibitor to innovation**