

Learning Paths - Level 01

## Search



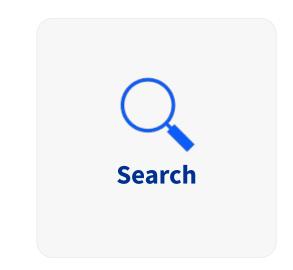
### Session Breakdown



## Introduction and Session Scope

## Understanding why search matters Introduction to Search

- Modern businesses generate and store vast amounts of data in various formats (documents, emails, databases, applications)
- Effective search empowers employees to access relevant information promptly
- Time wasted searching for information translates to lost productivity
- Search fosters collaboration by making it easier for employees to find and share expertise within the organization
- Effective search allows for self-service (autonomy)





#### What we are planning to cover in this session

## **Session Scope**

- What *Search* means and translates to in Liferay
- Identify when *Search* can be used to solve problems
- Apply *Search* principles for *Clarity*
- Check a traditional Search solution
- Check creative uses for Search
- Liferay best practices

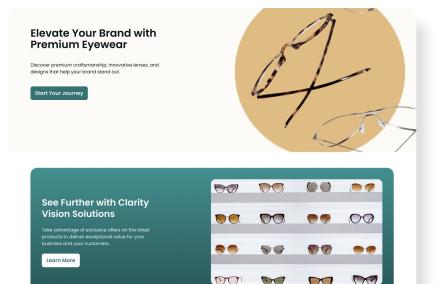




#### Case study

## **Clarity Vision Solutions Background**

- Global leader in optical technology
- Over 500 employees and 300+ million in revenues
- Traditional retail and online commerce
- Modern, stylish and comfortable products
- International Distribution via Partners
- Overnight success has led to growing pains
- Complex and fragmented infrastructure
- Expensive maintenance and licensing costs
- Increased operational costs by requiring costly resources (experts and consultants)
- Highly technical tools limit pool of contributors and increase the time to market required or new initiatives





## **Clarity's Critical Success Factors**

- 1. Non-technical participation
- 2. Simplified maintenance (and evolution)
- 3. Future proofed and flexible
- A. Increase engagement and user experience through personalization
  - 5. Risk mitigation with better governance
- 6. Lower investment / total cost of ownership



#### **Clarity Vision Solutions | Search Pages**

## **Clarity Business Requirements**

- Allow users to enter keywords which the system can use to match against relevant data
- Allow marketing team to design both layout and final rendering of various aspects of the search experience
- Provide a self-service platform for customers to search product documentation, manuals, and troubleshooting guides
- Enable searching content stored in legacy systems that may not be readily accessible within Liferay
- Deliver personalized search results based on user roles, departments, or previous search history
- Users can refine their searches with filters, facets, and keyword operators





#### **Clarity Vision Solutions | Search Pages**

## **Clarity Business Requirements**

- Allow for users to enter keywords that can be used by the system to try to match against relevant data
- Deliver a solution that allows the marketing team to design both layout and final rendering of various aspects of the search experience
- Provide a self-service platform for customers to search product documentation, manuals, and troubleshooting guides
- Enable searching of content stored in legacy systems that may not be readily accessible within Liferay
- Deliver personalized search results based on user roles, departments, or previous search history
- Allow users to refine their searches with filters, facets, and keyword operators for targeted results



📴 Liferay

## Understanding Search

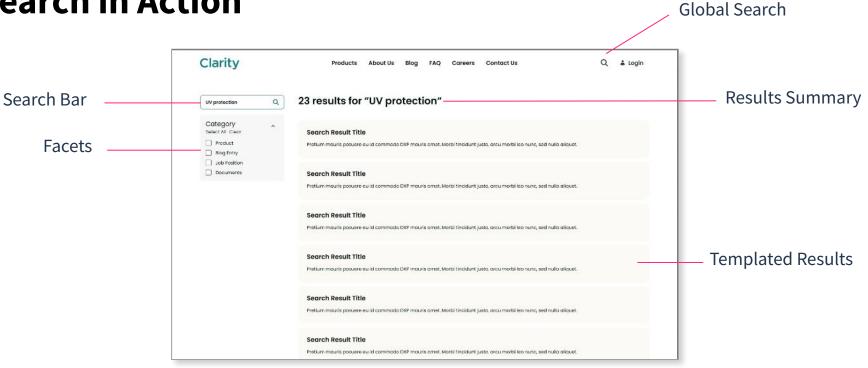
#### **Understanding Search**

## **Search in Liferay**

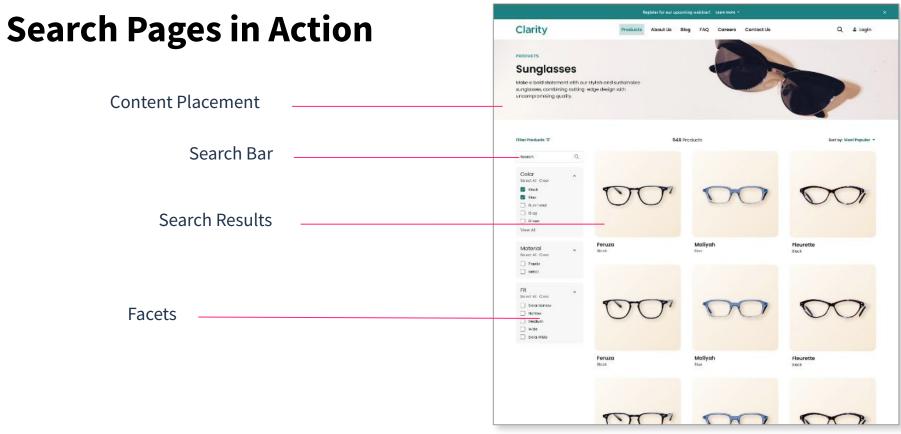
- API driven feature for more than one "Search Engine" implementation (or developed as customization)
  - Powerful internal and extensible API used to alter the behavior of indexing actions, queries...
- Comprehensive Indexing supporting wide range of content types
- Filters, facets and keyword operators for highly targeted results
- Multiple internal (functional) indexes to ensure fast results (even with large data sets)

- Low-Level Search with Alternate Indexes to query external indexes residing in the same cluster and Liferay index
- Synonyms and Result Rankings to configure different terms used to find results and prioritize certains records in result set
- Flexible and Template driven UI:
  - With individual components represent search capabilities to easily design pages
  - Component by component basis to build whatever the business needs
- Blueprints to create personalized search results based on user segments

### **Search in Action**







# Filtering with Facets

#### **Filtering with Facets**

### Facets

- More than 10 out of the box facets
- Covers most of the common "facet use cases"
  - Eg. Categories, Tags, Dates, Type of Content
- Include several facets related to commerce
- Use Widget configurations to fine tune the values based on business needs
- Support templating engine to allow for custom views

	Filter Products =		
	Search	Q	
Category Select All Clear  Customer Service Rep. E-commerce Specialists Finance and Accounting HR Specialist IT and Tech Support Spec. Manufacturing Specialists	Color Select All Clear Black Blue Gunmetal Gray Green View All	UV protection Category Select All Clear Product Blog Entry Job Position Documents	Q ^
Marketing Specialist     Optical Engineers     Product Designers     Quality Control Inspectors     Retail Store Managers     Supply Chain and Logistics	Material Select All Clear Plastic Metal		
Checkbox View All	Fit Select All Clear Extra Narrow Narrow Medium Wide Extra Wide	~	



#### **Filtering with Facets**

### **Custom Facets**

- Provide a "catch-all" for filters that are not provided out of the box
- Allow Administrators to use advanced configurations to create facets on the fly
- Work with almost any field in the index
- Support templating engine for custom views

ADVANCED CONFIGURATION
Aggregation Field 🛛
Follow the steps in the documentation to use object and web content structure fields. Learn more.
Custom Heading 🚳
Custom Parameter Name 🚳
Max Terms
10
Frequency Threshold
1
Order Terms By
Term Frequency Descending
Z Display Frequencies
Federated Search Key 💿

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## Working with Blueprints

#### **Working with Blueprints**

## **Personalized Search Results**

- Visual Query Builder provide accelerated workflow for blueprint development
- Boost, filter, hide, and match results on any indexed property allows fine tuned queries based on business needs / strategies
- Define your own custom query elements from scratch or use out-of-the-box element as a starter
- Personalisation context variables allow personalised search based on role, segment, location, user profile information, etc.
- Supports segmentation capabilities to allow for dynamic blueprints based on user context

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# Headless Search

#### **Headless Search**

## **Search Unleashed**

- Endpoints included right out of the box
- Follows Open API standards and best practices
- Promotes interconnectivity between disparate systems and sharing of data (rather than duplication)
- Supports the inclusion of a Blueprint as part of the request criteria
- Separate endpoint can be used for managing Blueprints (create, update, delete, ...)

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default	search-experiences-rest/v1.0
GET /v1.0/openapi.{type}	segments-asah/v1.0
SearchResult	^
POST /v1.0/search	postSearchPage 🗸
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Alexander Brown       alexander.brown       Marketing Manager       !         Olivia Davis       olivia.davis       Project Manager       !         Michael Johnson       michael.johnson       Software Engineer       !         Christopher Miller       christopher.miller       Financial Analyst       !         Test Test       test       !       !         Emily Williams       enily.williams       Data Analyst       !	🗌 Filter and Order 👻 🕇	E. Search for			۹ 🖽 🕇
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Emily Williams emily.williams Data Analyst	Christopher Miller	christopher.miller	Financial Analyst		1
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	20 Entries = Showing 1 to 6 o	of 6 entries.			
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## Unlock the power of knowledge: Empower every search with Liferay

