Digital Newspaper Website
Use-Case Specification: Search Articles

Version 1.0

Revision History

Date	Version	Description	Author
07/07/2025	1.0	Specific about Search Articles use case	Lê Thị Minh Thư

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Use-Case Specification: Search Articles

1. Use-Case Name: Search Articles

1.1 Brief Description

This use case describes the functionality that allows users to search the articles by keywords, authors, tags or categories. It also allows users to combine multiple attributes for searching (e.g.Searching by keyword, tag and author, or searching by all attributes)

2. Flow of Events

2.1 Basic Flow

1. The user enters a keyword, author, tag or category into the search bar.
2. The user clicks the Search button or hits "Enter".
3. The system validates the input.
4. The system queries the article database
5. The system displays a list of matching articles with default sorted by relevance or date.

2.2 Alternative Flows

2.2.1 User Submits Empty Search

- At step 2, if the user submits an empty search:
- The system displays an error message: "Please enter a search keyword." The current page remains unchanged.

2.2.2 The Input Keyword Too Long

- At step 1, if the user input a keyword exceeding the allowed character limit (more than 200 characters)\\
- The system displays an error message: "The keyword is too long".
- It automatically ignores any characters beyond the 200th. Or if the search keyword is entered via **copy-paste**, the system only accepts the first 200 characters and truncates the rest..

2.2.3 No matching result

- At step 5, if no articles match:
- The system displays a message: "No articles found. Please try another keywords"

2.2.4 Autocomplete or Suggestions.

- At step 1, when the user is typing in the search bar:

2.2.4.1 Autocomplete or Suggestions SubFlows

1. The system suggests keywords or article titles.
2. The user can either:
    a. Select a suggestion from the dropdown, or
    b. Press "Tab" to choose the current suggestion (shown in gray in the search bar).
3. The selected suggestion replaces the current input.
4. The remaining steps in the Basic Flow continue as usual. (from Step2)

3. Special Requirements

3.1 System Performance

- The system should return search results within 2 seconds for queries with up to 3 combined filters (e.g., keyword + tag + author).
- Autocomplete suggestions should appear in less than 500 milliseconds after the user types each character.

3.2 Scalability

- The system should handle at least 1,000 concurrent search requests

4. Preconditions

4.1 The article database is available.

5. Postconditions

5.1 A list of relevant articles is displayed to the user.

5.2 If no match is found, a "No results found" message is shown.

5.3 The user can click on a result to view the full article.

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6. Extension Points

6.1 Autocomplete or Suggestions

- **Location in flow:** Step 1 (when the user is typing in the search bar)
- **Description**
    + As the user types into the search bar, the system provides real-time suggestions based on popular keywords, article titles, or search history..
    + Users can select a suggestion or press **Tab** to autocomplete.
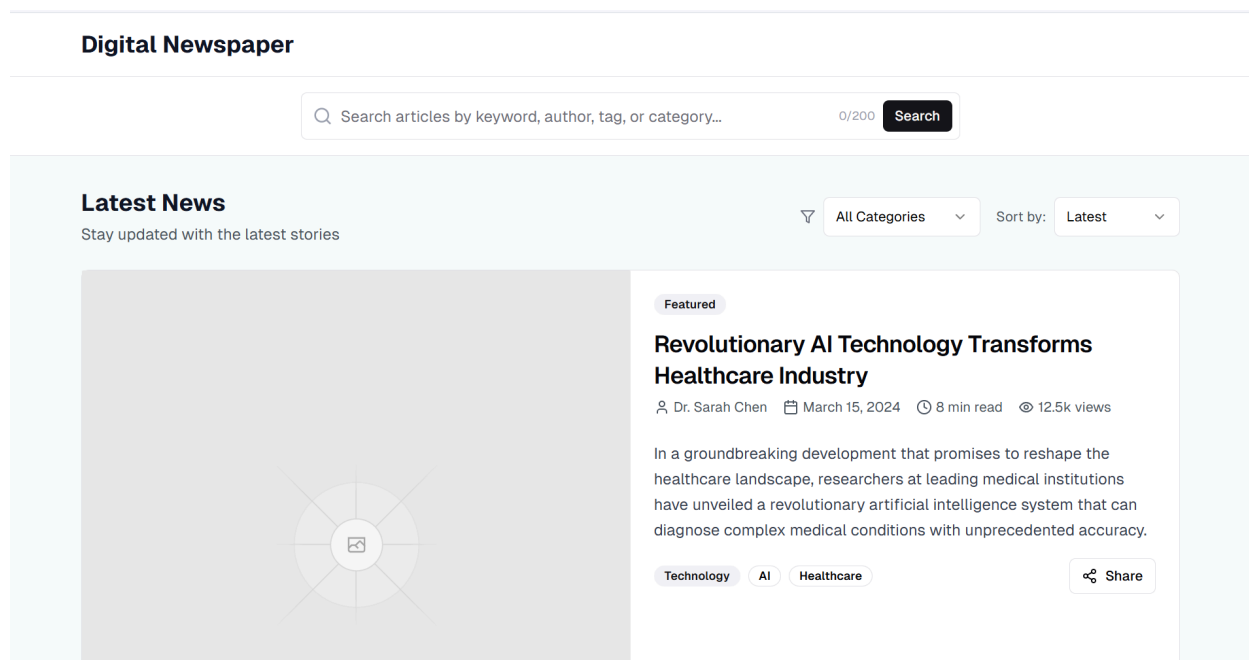   + The selected suggestion replaces the input and the flow resumes at **Step 2.**

7. Low Fidelity Prototype For Use Case
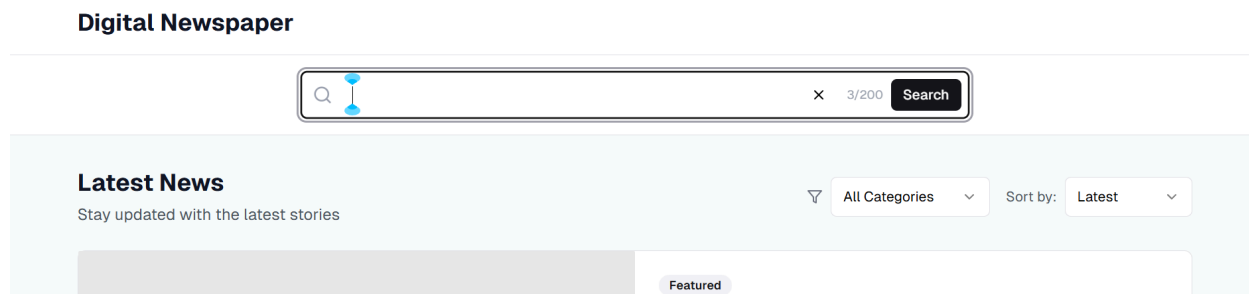
7.1 Prompt Used for AI Tool

- Create a responsive web UI for a digital newspaper article page with a "Search Article" feature.
- Requirements: Meets all that have been specified in the use-case specification.
  [2. Flow of Event ……… 6.Extension Points] (*Paste the use case specification from section 2 to 6 here*)

- The UI should be mobile-friendly and support modern browsers. Prioritize usability and simplicity.
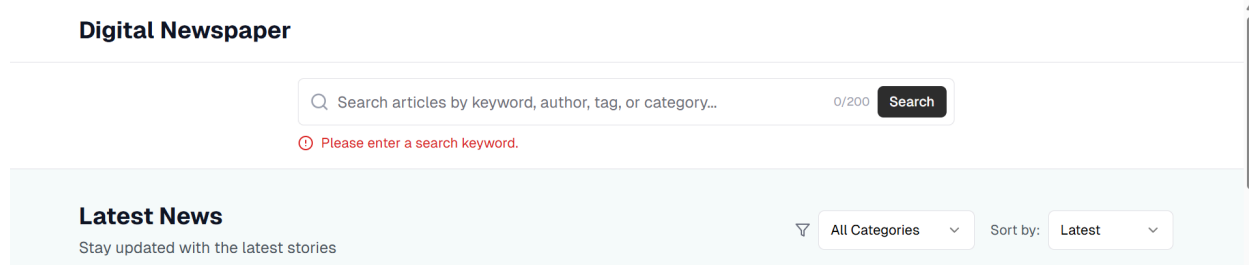
7.2 Generated Interface

Digital Newspaper

Search articles by keyword, author, tag, or category...   0/200   Search

Latest News
Stay updated with the latest stories   All Categories ⌄   Sort by: Latest ⌄

Featured

Revolutionary AI Technology Transforms Healthcare Industry

Dr. Sarah Chen   📅 March 15, 2024   🕐 8 min read   👁 12.5k views

In a groundbreaking development that promises to reshape the healthcare landscape, researchers at leading medical institutions have unveiled a revolutionary artificial intelligence system that can diagnose complex medical conditions with unprecedented accuracy.

Technology   AI   Healthcare   ⌁ Share

The main screen of the website, the Search bar is shown as above.

Digital Newspaper

🔍   ✕   3/200   Search

Latest News
Stay updated with the latest stories   All Categories ⌄   Sort by: Latest ⌄

Featured

Typing space characters in the Search bar.

Digital Newspaper

🔍 Search articles by keyword, author, tag, or category...   0/200   Search
⊘ Please enter a search keyword.

Latest News
Stay updated with the latest stories   All Categories ⌄   Sort by: Latest ⌄

After clicking the Search button when the user has just input space characters. The system message error "Please enter a search keyword."

Digital Newspaper

| 🔍 ne | ✕ | 2/200 | **Search** |

| 🔍 renewable energy | | 45 articles |

Latest News
Stay updated with the latest stories

⊽ | All Categories ▾ | Sort by: | Latest ▾

The user retypes the search keyword. The keyword suggestion (if exists) is displayed below.

Digital Newspaper

| 🔍 renewable energy | ✕ | 16/200 | **Search** |

Latest News
Stay updated with the latest stories

⊽ | All Categories ▾ | Sort by: | Latest ▾

The user Tab to get the first keyword suggestion.

Digital Newspaper

| 🔍 renewable energy | ✕ | 16/200 | ↻ |

Searching...

↻

Searching articles...

After clicking the Search button, the Search process is processing (the Running Circle)

Digital Newspaper

The results is shown after searching.

The user can select the index in the Sort by box to Filter the articles by Date, Relevance or Popularity.

Digital Newspaper

edented efficiency rates of up to 47% in laboratory conditions.iMjijijjjjjj 200/200   **Search**

No suggestions found

Search Results

In case that the Input Keywords access 200 characters, no character is added after that, even if the user types directly or uses the "Copy-Paste" method.

Digital Newspaper

Scientists have developed a new solar panel technology that could 200/200

Searching...

Searching articles...

The system is processing the Search process.

Digital Newspaper

Scientists have developed a new solar panel technology that could 200/200   **Search**

Search Results

No articles found

Please try another keywords

In case no article is found with the Searching Keywords, the screen displayed "No article found" as above.