

19Z026 - USER INTERFACE DESIGN

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User Interface Design for Airports Authority of India (AAI) Website

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1. FLAWS AND REASONS FOR CHOOSING THE WEBSITE:

1.1 Flaws in Airports Authority of India Website (aai.aero)

- The font size in the navigation bar is too large.
- The footer contents are not aligned properly.
- The context of resume / pause animations is unclear.
- The entries in the Lost and Found table are coloured red which is not a part of the website color palette.
- The images and buttons are not sized properly.
- The spacing used throughout the pages is not good.
- There is too much information on every page.
- The entire website and specifically every image in the website takes a significant amount of time to load (≥ 5 seconds)
- Clickable elements and links are not differentiated from static text.
- Some important items are buried under dropdowns which are difficult to locate.

1.2 Reasons for choosing Airports Authority of India Website (aai.aero)

- **Diverse Users:** Users like job seekers, airport staff, tourists, etc.
- **Website Complexity:** Numerous number of services are offered through the website
- **Multiple device requirements:** This site is available in mobiles, desktop computers, laptops, etc. Hence various design principles can be learnt.
- **Significance in real world:** Since it is an application designed by the government it is used by people all over the country.

2. HUMAN COMPUTER INTERACTION AND PARADIGM

2.1 THE HUMAN

- **Visual Overload:**
 - The homepage has many sliders, announcements, and menus components that may confuse users.
 - Visual clutter makes it harder to focus and perceive useful information
- **Ineffective Information Hierarchy:**
 - Elements that are more frequently clicked, like Flight Information and Alerts are not properly distinguished from less frequently clicked elements like Citizen Charter or Best Practices
 - The human *short-term memory* (7 ± 2 items) is overloaded with too many choices.
- **Limited Accessibility:**
 - No screen reader indicators or high-contrast toggle.
 - No support for **color-blind** users

- **Poor Mobile Responsiveness:**
 - Touch targets are small; they don't account for *motor limitations* or *touch interaction feedback*.
 - Sliders are hard to swipe precisely (this affects users with lower dexterity or using only one hand.)
- **Cognitive Load:**
 - Multiple menus with nested items increase the mental processing burden.
 - The user is not guided to formulate a clear intention or goal.

2.2 THE COMPUTER

- **Slow Load Times & Large Assets:**
 - The landing page programmed to load too many assets like images and stylesheets not only degrades user experience but also severely impacts usability for users on low-speed connections or older devices.
 - Apart from making user wait unnecessarily, the website also is not very inclusive for users with diverse computing technology
- **Inconsistent Performance Across Browsers:**
 - Many elements like sliders, embedded maps, etc do not render the same on Chrome and Safari, further limiting the flexibility a user has.
- **Inadequate Feedback Systems:**
 - Clicking on certain links (e.g., "Login") results in no visual loading indicator or status updates.
 - Delays in feedback disrupt the sense of interactivity and user control.
- **Over-reliance on Sliders/Carousels:**
 - These often fail accessibility tests and don't retain user attention effectively, especially for older users or those with disabilities.

2.3 THE INTERACTION

Poor Use of Interaction Paradigms:

- The website is not able to leverage Direct Manipulation principles (e.g., click-to-reveal, drag-drop).
- User is confused and ends up not fully trusting website since it lacks the What You See Is What You Get (WYSIWYG) behaviour.

Overuse of Menus:

- Dropdowns and flyouts lack visual cues or grouping based on frequency or importance, violating ergonomics.
- Example: "Airport Operations" and "Air Navigation Services" both have extensive submenus that aren't intuitively grouped.

Lack of Context Awareness:

- The system does not adapt based on user geography, flight interest, or previous visits.

Not Designed for Flow:

- The user journey (from checking flights to booking parking or lounges) is not smooth.
- This violates the idea of maintaining a flow state or minimizing execution effort.

2.4. THE PARADIGM

- **Command Line Interface (CLI) Paradigm:**

- The AAI website is GUI-based and offers no CLI or keyboard shortcut interface.
- Instead of a CLI, the website could offer shortcut based navigation and data input so that more experienced users like Airport Staffs, Operators could navigate and get their work done much quickly

- **Windows, Icons, Menus, Pointer Paradigm (WIMP)**

- Menus that are cluttered and over nested not only distracts the user, but also violates a good WIMP design. For example, the Airport Operations page has 5 - 6 sub levels
- Icons are inconsistent or missing in many sections. Some clickable items don't appear interactive.

- **Direct Manipulation Paradigm**

- Most elements are not interactively responsive (e.g., clicking airport maps or visuals doesn't zoom, show info, etc.).
- No drag-and-drop or real-time interaction with airport services.

- **Menu Selection Paradigm**

- Too many menu items with deep (more choices = slower decisions).
- No personalization: All users see the same menus, regardless of context or role (passenger vs operator).

- **Form Fill-In Paradigm**

- Many forms are long (e.g., grievance redressal, tenders) and not well chunked.
- No inline validation - errors are shown only after submission.

- **Agent-Based Paradigm**

- No chatbot or vocal assistance.
- Missed opportunity for multilingual voice assistance, especially for passengers from rural areas or non-English speakers.

- **Multimodal Paradigm**
 - Website is mostly visual/textual - no support for alternate modalities like voice, haptics, or gestures.
 - No support for screen readers, captions, or language toggling.

3. STAGES IN USABILITY SPECIFICATION & EVALUATION

3.1 STAGE 1 :USER AND TASK ANALYSIS

- **User:** Airline staff
Task: Find airport related information and facilities offered (Eg. Contact number of a particular airport)
Circumstances: Visiting the airport during transit
- **User:** Vendors/ Contractors
Task: To access documents and download tenders (Eg, viewing annual reports and RTI(Right to Information) documents)
Circumstances: Job or employment seekers
- **User:** Staff belonging to various airports in India
Task: To ensure that all the information related to their airports is up to date and that grievances are properly addressed. (Eg. Lost and Found items are kept up to date.)
Circumstances: Administrators or Supervisors
- **User:** Passengers
Task: To know about the do's and don'ts, the items that are allowed and not allowed, and to read press releases
Circumstances: Travelers or tourists

3.2 STAGE 2: SETTING USABILITY OBJECTIVES AND SUCCESS CRITERIA

Tasks	Introduction & Training	Limited Usage	Full Usage
Find information about the Airport	Effectiveness	Efficiency	
Download Tenders / Notices	Effectiveness, Satisfaction	Efficiency	

Access RTI Documents	Effectiveness		
View Airport Facilities	Effectiveness	Efficiency	
Submit Feedback / Grievance	Effectiveness, Satisfaction		
Read News / Press Releases	Effectiveness, Satisfaction		
Search and Download Reports	Effectiveness	Efficiency	
Access in Hindi / Accessibility Mode	Effectiveness	Satisfaction, Effectiveness	

3.3 STAGE 3: WRITING USABILITY STATEMENTS AND IDENTIFYING MEASURES

Task	Usability Statement	Measurement Criteria
1. Find Airport Information	Users should be able to access relevant airport details swiftly using search.	<ul style="list-style-type: none"> - Time to complete: <= 15 seconds - Commands/actions: <=3 - Errors: Misunderstanding
2. Download Tenders / Notices	Users should locate and download a tender document without confusion.	<ul style="list-style-type: none"> - Number of clicks: <= 4 - Errors: < 1 navigation error - Success rate >= 90%

3. Access RTI Documents	Users should be able to search or filter, and download RTI files easily.	- Commands remembered: ≥ 1 filter method - Time to task completion: ≤ 20 seconds - Errors: Misunderstanding
4. Submit Feedback/Grievance	Users should locate and complete the feedback/grievance form.	- User actions: ≤ 4 - Error recovery time: ≤ 10 s - Attitude: Satisfaction $\geq 4/5$
5. Switch to Hindi or Accessibility Mode	Users should be able to toggle between languages or enable accessibility features with minimal effort.	- Time to locate toggle: ≤ 5 s - Command remembered: ≥ 1 - Support materials: visible and helpful
6. Read News / Press Releases	Users should quickly access and browse AAI updates.	- Commands used: ≤ 2 - Time taken: ≤ 15 s - User satisfaction /5
9. Download Reports / Stats	Users should be able to filter and download reports in one go.	- User actions: ≤ 3 - Errors: filter misuse or download failure- Time to download: ≤ 10 seconds
10. Learn to Navigate the Site	First-time users should learn major site functions without external help.	- Time to learn basic usage: ≤ 3 minutes - Commands remembered: ≥ 3 - Attitude: Confidence $\geq 4/5$

3.4 STAGE 4: CHOOSING TECHNIQUES FOR MEASURING USABILITY

3.4.1 Group 2 Techniques

- Questionnaires**

<https://docs.google.com/forms/d/1DS5sMAGlc91h3v8zF-Mu9VjKuMWE8MPggl7tleSO0Yg/edit?usp=drivesdk>

3.4.2 Group 3 Techniques

3.4.2.1 Feature Checklists

- Color palette - follow the same blue theme of the existing website
- Navbar/sidebar - all links and logo
- Language toggle
- Search bar with recommendations
- Login/Profile icon - for employees
- Alert banners - (latest announcements/new information/updates)
- Slideshow - of flights, airports
- Quick and easy access to important information
- Footer - minimal
- Layout - cards, hover effect
- Long paragraphs - read more button
- Accessibility button
- Clean tables - for tender, recruitment info - with proper links to pdfs
- Proper icons
- Avoid too much nested links

3.4.2.2 Incident Diaries

1. At what time did the problem occur?

2. What started the problem?

- (i) Could not find the relevant page or section
- (ii) Could not understand how to proceed (unclear instructions/buttons)
- (iii) Page didn't load or took too long
- (iv) Got an error message - Specify
- (v) Language or accessibility issue
- (vi) Other - Specify

3. Which section or feature were you trying to use when the issue occurred?

- (i) Flight Information
- (ii) Tenders/RFQs
- (iii) RTI
- (iv) Airport Directory
- (v) Online Services (Feedback, Contact Forms, Complaint)
- (vi) Others
 - Please specify: _____

4. Which help method(s) did you try to resolve the issue?

- (i) Site's Search bar
- (ii) FAQ or Help section
- (iii) Navigation menu / Site map

- (iv) Asked someone for help
- (v) Tried using a different device (mobile/desktop)
- (vi) External Google search
- (vii) Other

- Please specify: _____

5. Did the information/help obtained resolve your problem?

- (i) Yes, completely
- (ii) Yes, partly
- (iii) No, not at all

6. How much time did you spend trying to resolve the problem?

- (i) Less than 1 minute
- (ii) Between 1 and 5 minutes
- (iii) Between 5 and 10 minutes
- (iv) More than 10 minutes

7. What device were you using?

- (i) Desktop/Laptop
- (ii) Mobile
- (iii) Tablet
- (iv) Other: _____

8. What browser were you using?

- (i) Chrome
- (ii) Firefox
- (iii) Safari
- (iv) Edge
- (v) Other: _____

9. How satisfied were you with your overall experience at that moment?

- (i) Very Satisfied
- (ii) Somewhat Satisfied
- (iii) Neutral
- (iv) Somewhat Dissatisfied
- (v) Very Dissatisfied

10. Additional Comments / Suggestions

2.3 Cooperative Evaluation

2.3.1 Stakeholders Involved:

- AAI Employees - Use the Employee Login card for internal access.
- Air Passengers - Refer to Dos and Don'ts for baggage and travel rules.
- Foreign Travelers/Embassies - Use the Embassy Information under the "AAI Airports" card.

2.3.2 Tasks:

- Employee: "Log into your portal using the Employee Login card."
- Passenger: "Find if power banks are allowed in checked-in baggage."
- Foreign traveler: "Locate the embassy information for your destination airport."

2.3.3 Result:

- Do's and don'ts have a lot of info and hence it is difficult to scan quickly

3.5 STAGE 5: PLANNING A USABILITY EVALUATION

3.5.1 Think Aloud

Task Assigned to User

- Locating tender documents / RTI report
- Searching for Lost and Found items
- Checking for passenger Do's and Don'ts
- Finding information about airport facilities and contact

Observations

- Many users hesitated at dropdown menus due to the large number of nested options.
- Users often paused because menu labels were ambiguous
- Some expected clickable icons were missing, leading to uncertainty.
- The slow page loading and inconsistent layout caused frustration and interrupted the user's thought flow.

Inference

The Think-Aloud study helped reveal cognitive barriers such as high mental load, unclear visual hierarchy, and poor mapping between user expectations and actual site behavior.

3.5.2 Review Based Evaluation:

1. Studies in visual hierarchy design demonstrate that users can only process limited information (7±2 rule) effectively. Research specifically shows that visual hierarchy uses visual techniques to show elements in order of importance, and our proposal to reduce visual clutter directly addresses this cognitive limitation

We decompose the UI elements and the information flow by grouping related items and create a clear visual hierarchy. The following article is explains this [Cognitive Load Optimization in User Interface Design for Info Services](#)

2. According to Schneiderman's Golden Rule to "Strive for Consistency" in icons, menus and colors, common, easily recognized icons are used .
3. The design flattens the AAI website's deep and nested menus by grouping related items.

Use no more than two levels of submenus. Any more than two levels of submenus will likely confuse and overwhelm users. Keeping navigation relatively flat improves findability for users and reduces the cognitive load it takes to remember where they are. If the site's page structure is deep, consider adding a local navigation menu to the top of closely related pages. For example,

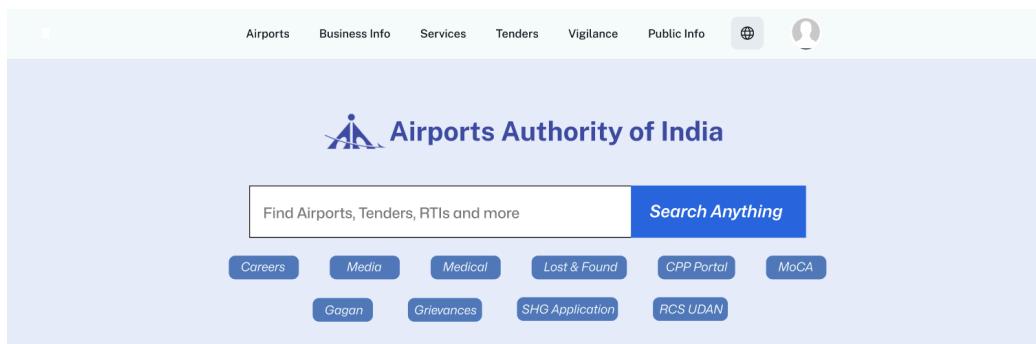
4. Search bar placement

Best Practices for Search Bar Placement and Size

The placement and size of a search bar are critical factors that influence its effectiveness in guiding users through their digital journey. Ideally, a search bar should be prominently positioned at the top of the page or application interface, where users naturally look for it. This prime real estate ensures that users can quickly locate the search function without having to navigate through multiple layers of content.

[Designing Effective Search Bars: Best Practices for Enhancing Usability - Claritee](#)

Following this, the search bar is placed prominently in the hero section of the home (landing) page



5. According to the blog, the links are blue is used for well specifying links
[Beyond Blue Links: Making Clickable Elements Recognizable - NN/G](#)



4. SHNEIDERMAN'S GOLDEN RULES:

4.1 Strive for consistency:

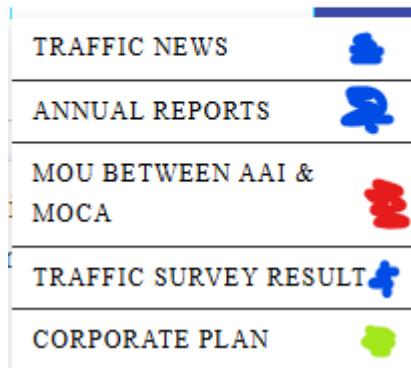
4.1.1. Mistakes:

- Each option has a box of different size



- Across the page, padding is inconsistent or too low (bad padding)

- **Blue:** Goes to a page with a sidebar
- **Red:** Goes to a page without a sidebar even though it is on the same level as blue
- **Green:** Goes directly to a pdf



4.1.2. Examples:

- There is a consistent color theme
- Every sub page has the same footer element
- There is a general format that is mostly followed i.e “Page -> subpage -> links -> pdf”. It is just broken in many places

4.1.3. How to enforce consistency:

- Create a single common workflow to reach any information. This is hard as different
- Use common values for design elements like padding, color etc.

4.2 Enable frequent users to use shortcuts:

- There are no shortcuts. The page hierarchy is designed so that some pages can be reached in one click but this is due to poor design of the hierarchy, and are not shortcuts. For every single page, there is only one path to access it.



- This section has pseudo shortcuts as pages such as Lost & Found should be under the proper hierarchy but are not. They should be integrated into the actual hierarchy and then kept as a shortcut here

4.3 Offer informative feedback:

- Since every page looks similar and confusing, it is very hard to keep track of where the user is in the workflow.

- These do help identify what the user is looking for but they can be improved with a better color scheme and with an overall better design, it can be clearer.

4.4 Design Dialogs to Yield Closure

- This Lost and Found form does not do a local check on the form details but checks the server, which leads to very slow load times. It also does not show confirmation dialogs.

4.5 Permit Easy Reversal of Actions:

- Since this is mainly an information retrieval platform, this principle is already enforced due to the simple design as no significant actions can be taken by the user that are irreversible.

4.6 Offer Error Prevention or Error Handling:

- Like principle 5, due to the simplistic nature of the website, the only error possible is wrong navigation, which is clearly shown by the navigation flow at the top

4.7 Support Internal Locus of Control:

- While the user does have full control over the system, the overall design causes confusion which reduces the feeling of control that the user has.

4.8 Reduce Short Term Memory Load:

- Even though the actions taken are very simple, the website does have a feeling of complexity due to its poor design. Users often feel as though they forget what they were looking for due to how the elements are organized and design

5.NORMAN'S 7 PRINCIPLES OF INTERFACE DESIGN:

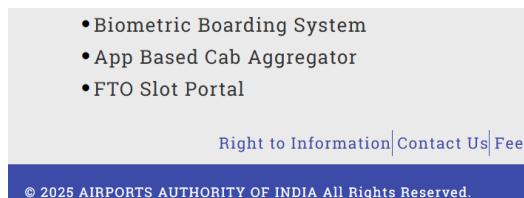
5.1 Use both knowledge in world & knowledge in the head

5.1.1 Issues:

- The Home page of the website has multiple menus. So users are forced to remember under which menu they can find the option that is required by them.



- Technical terms are shown without explanations or abbreviations. Hence, it will be difficult for a new user as it overloads their short-term memory (more than 7 ± 2 chunks). But advanced users who know the particular technical terms, can get their work done quickly.



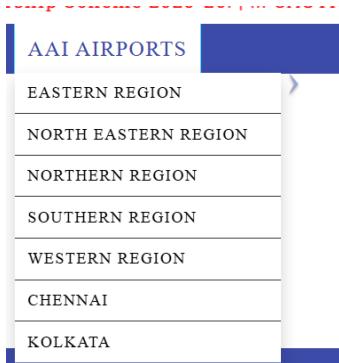
5.1.2 Improvements:

- Providing explanations or abbreviations for technical terms (Eg. FTO - Fund Transfer Order).
- The overloading of short term memory can be reduced by using universal icons (Eg. Document icon for tenders).
- For new users, a 'Popular Services' menu can be added in the home page which consists of services like Download Tenders, Find your airport info, Do's and don'ts while flying, etc.

5.2 Simplify task structures

5.2.1 Issues:

- The AAI Airports Menu groups airports by region names in India (Northern, Western, etc.), which AAI staff can understand but passengers and tourists who are visiting India will have no idea about which region the airport is located in. (Eg. A tourist trying to find 'Coimbatore Airport' won't know whether it's in the Eastern, Western or Southern region.)



5.2.2 Improvements:

- Region names are replaced with names of airports or the names of the city in which the airports are located. (Eg. Using the 'Search Airport' box where users type the city name and find the corresponding airport)

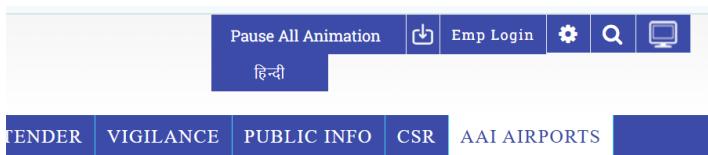
5.3 Make things visible

5.3.1 Issues:

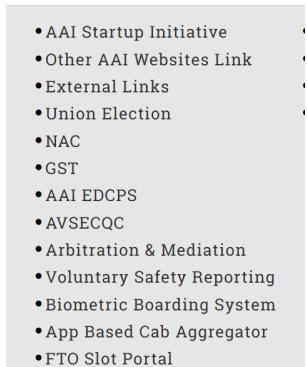
- The process to find the lost and found items in an airport is complicated and it is not visible.

Medical Grievances Lost & Found

- The language toggle option (English/Hindi) is difficult to find.



- Some hyperlinks look like plain text. Hence, users don't realize that they can be clicked.



5.3.2 Improvements:

- Highlighting the 'Lost and Found' option so that it is clearly visible.
- Placing language toggle buttons in large size at the top right , so that users can notice it quickly.
- Using visual cues like making sure all clickable elements have underlines or color change when hovered.

5.4 Get the mapping right

5.4.1 Issues:

- Users expect that clicking an email address in the website will let them send a mail to that specified address, but here it is not possible as only plain text without symbols is present.

 oickota[at]aai[dot]aero

- Prohibited items list is present under the Security Information menu.



The screenshot shows a web page titled "Security Information". At the top, there are three tabs: "Prohibited Item List" (which is highlighted in blue), "Security Related Information", and "Lost and found Baggage". Below the tabs, a message states: "The following items that are banned for carriage on person/hand baggage on board flights operating from civil airports in India; and Indian Registered aircrafts from foreign airports :". Under the heading "Personal Items", there is a list of prohibited items:

1. Lighters
2. Scissors-metal with pointed tips
3. Realistic replica of toy weapon

5.4.2 Improvements:

- Replacing mails with a clickable link with proper symbols (Eg. oickota@aai.aero)
- Adding a new section for Prohibited Items list in the Home Page.

5.5 Convert constraints into advantages

5.5.1 Constraints:

- Physical constraint: Mobile users struggle with small buttons.
- Technological constraint: Slow load times because of the presence of heavy images.



- Cultural constraint: People expect government websites to focus more on the required content instead of being aesthetically appealing.

Advantages:

- Small buttons allow each page to contain more content and hence save the cost and effort for including more pages.
- Since the website does not use highly expensive resources to speed up load times, the cost for that is reduced.
- The effort spent on making the website aesthetically pleasing is reduced.

5.6 Design for Error

5.6.1 Issues:

- Users who click wrong links have no undo or back navigation guidance.
- There are no pop-up messages or dialog boxes instructing how to proceed when an error occurs.

5.6.2 Improvements:

- Adding loading indicators and status messages.
- If a page fails then alternative links must be suggested.
- Instead of 404 Error , it can be displayed like 'The page you're looking for is not available. For more information '[Click Here](#)'.

5.7 When all else fails – Standardize.

5.7.1 Issues:

- Different sections of the website use different menu styles, fonts and icons, leading to inconsistency.
- Some pages have sliders,others don't. Some use tables, others use plain text.
- Footer links are also inconsistent.



5.7.2 Improvements:

- Creating a unified design system with fixed menu styles, buttons,icons and fonts.
- Ensuring all pages have a consistent header and footer (with Contact Us, Feedback, Right To Information,etc).
- Using standard color coding: blue for links,red for errors,etc

6.TASK ORIENTED APPROACH

6.1 JUSTIFICATION FOR CHOOSING TASK ORIENTED APPROACH:

- This Airports Authority of India webpage is an information retrieval platform. It is a very broad platform that encompasses many different aspects of airport related information.
- Most users will be coming with requests for specific information which can be broken down into one task.
- Each such task is distinct from each other and most requests do not need interaction between different parts of the system. Hence, we move forward with a task oriented approach

6.2 STAGE 1: UNDERSTANDING USERS

- The different stakeholders in the aviation ecosystem that mainly use the website are:

Category	Description
Passengers/Travelers	Get airport information, learn about amenities, and view baggage policies
Business Partners (Airlines, Cargo, Vendors)	View notices, operational policies, and tenders.
Employees & Job Seekers	Look for job openings, and recruitment announcements.
Government/Policy Makers	Get access to circulars, policies, and annual reports.
General Public/Media	View announcements, events, and press releases.

6.2.1 Table 1: Generic Users & Description Sheets

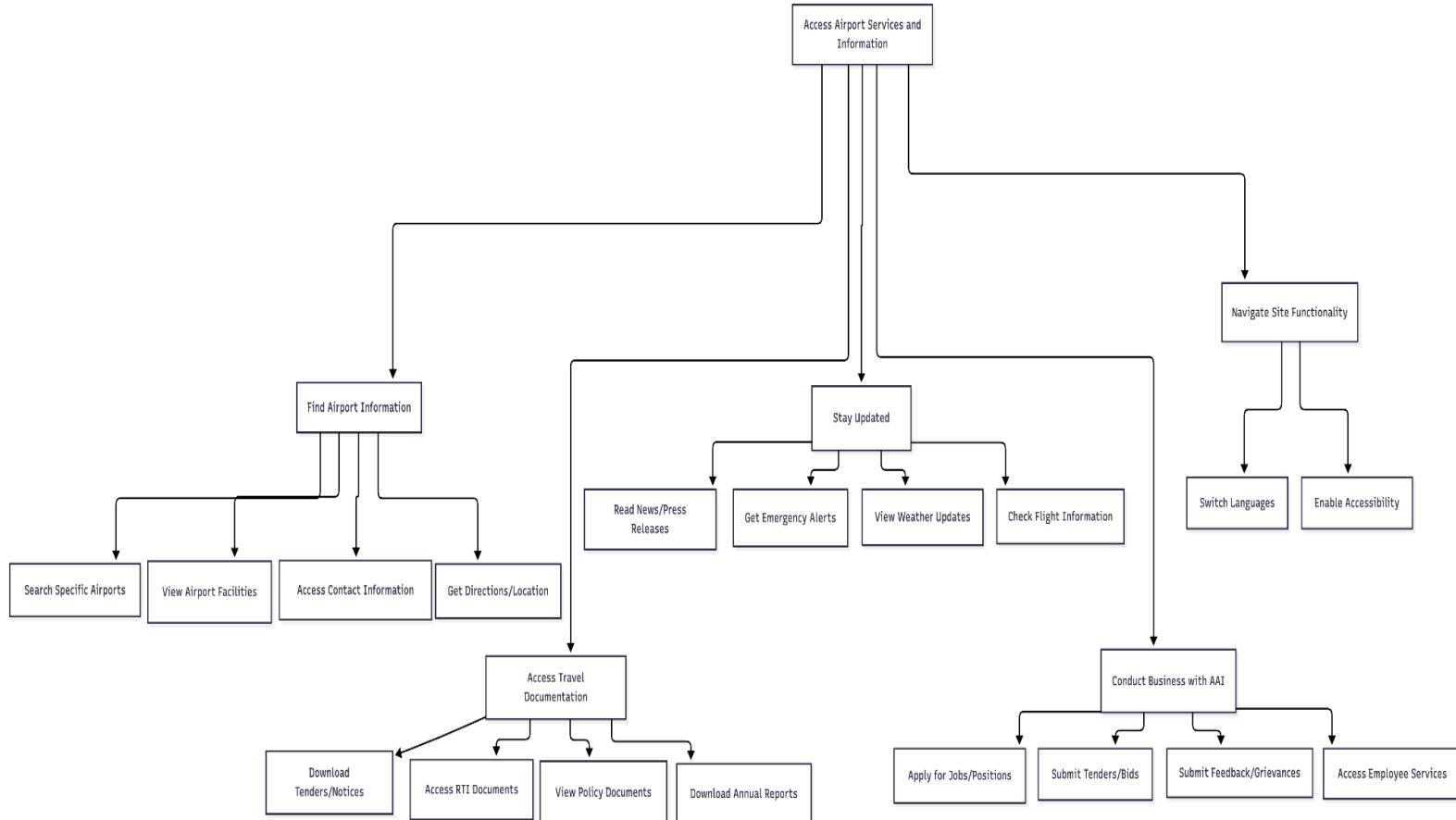
Generic Users	Relationship	Job	Person	Organization
Passenger/Traveler	1 (Primary)	YES	YES	YES
Airline/Cargo Agent	1 (Primary)	YES	YES	YES
Job Seeker	1 (Primary)	YES	YES	NO
AAI Employee	2 (Secondary)	YES	YES	YES
Govt./Policy Maker	2 (Secondary)	YES	NO	YES
Public/Media	3 (Tertiary)	NO	YES	YES

- The table defines the relationship level(Primary, Secondary and Tertiary) and also indicates the way(Job, Person and Organisation) in which each user interacts with the system.
- At a lower level, Job is what they need to do, Person represents who they are (skills, personality, etc are important) and Organisation says whether they fit in the organisation

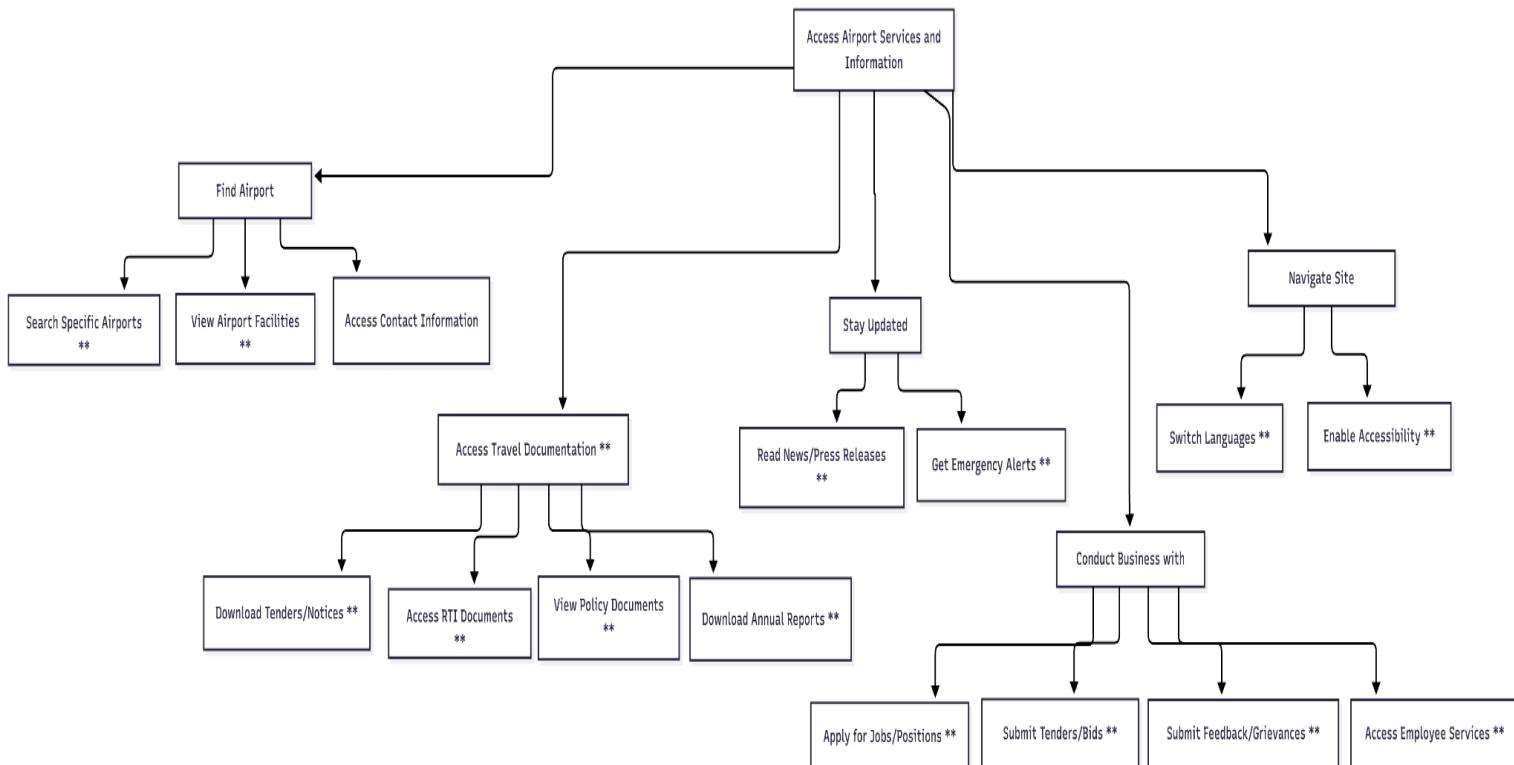
6.2.2 Table 2: Now vs Proposed

Aspect	Now	Proposed (2 years on)
Attitude	Visitors, information-seeking, prefer official sources.	More confident Expect an interactive and personalized experience.
Motivation	Check flight info Apply for tenders/jobs	Personalized updates
Aspiration	Convenience - Reliable information.	Smart notifications (SMS/Email) AI-driven FAQs and chat support.
Expertise	Mixed: passengers (low tech), airlines (high domain expertise).	Expect integration with external apps (IRCTC, DigiYatra).
Skill	Users rely on manual search and downloads.	Need to adapt to e-tendering, digital forms, and mobile apps.
Job (Role)	Users view the site as an information portal.	Shift towards service + transaction portal (bookings, payments, live updates).

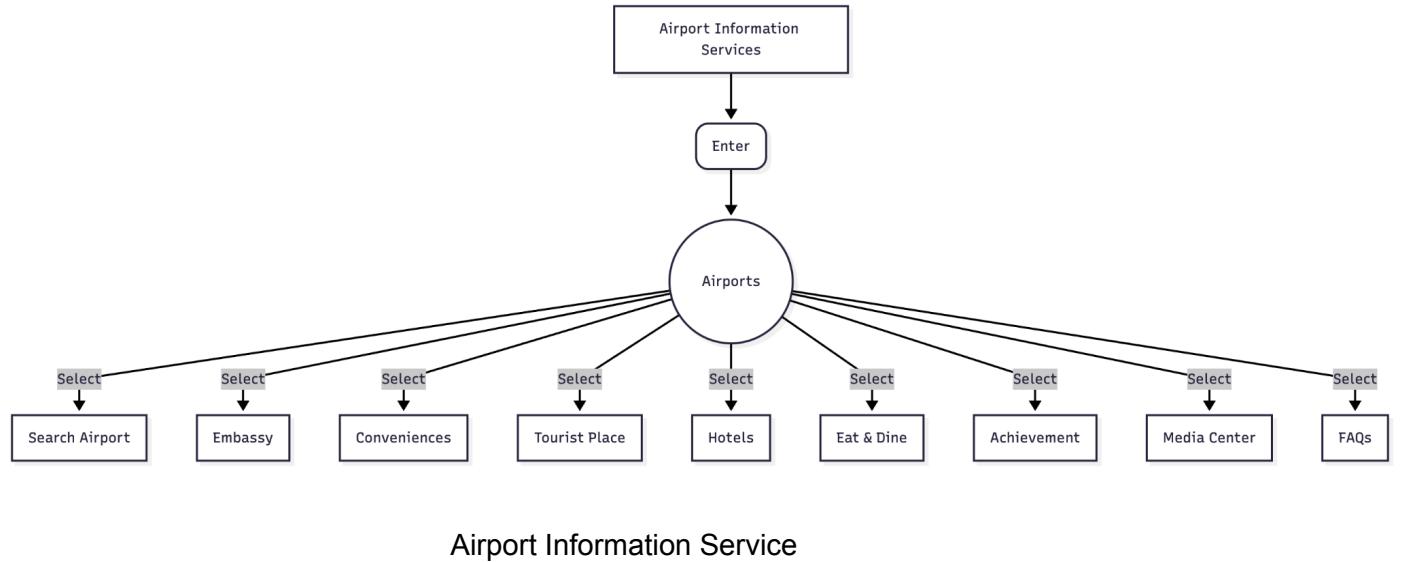
6.3 STAGE 2: TASK ANALYSIS AND ALLOCATION OF FUNCTION



6.4 STAGE 3: IDENTIFY INTERFACE TASKS



6.5 STAGE 4: DIALOGUE SPECIFICATION



Document View/Download
Process

Enter

Document Selection

Filter

Apply Filters

Filtered Results

Browse

Browse All

Complete List

Select

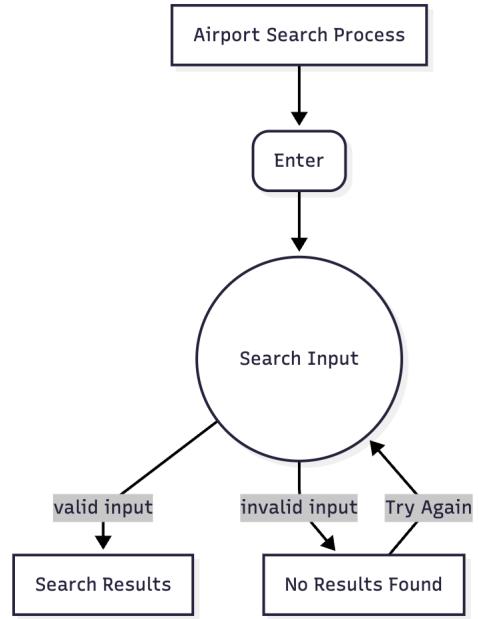
View PDF Details

Select

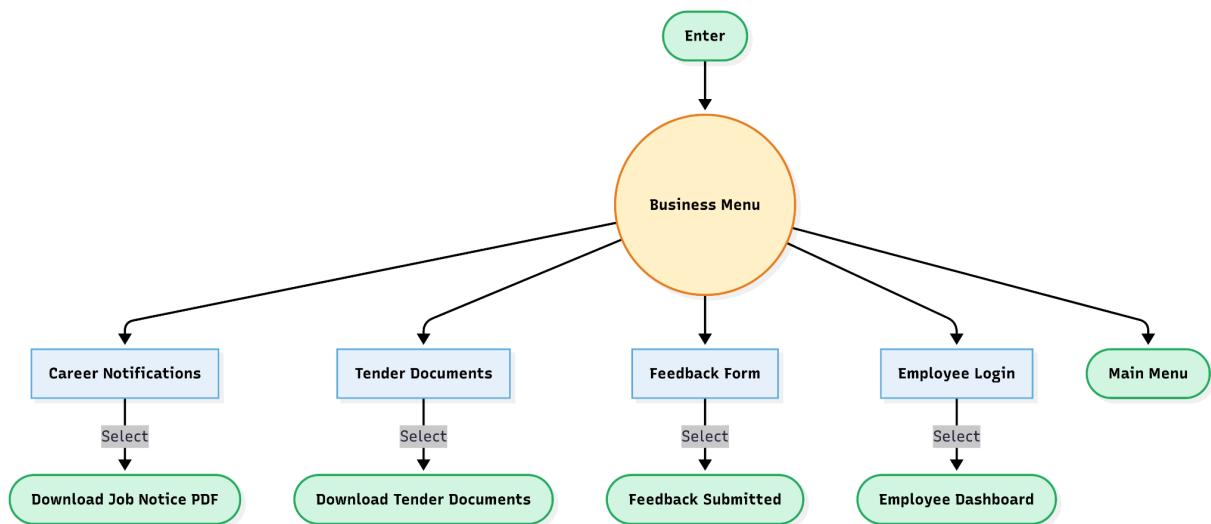
Download

PDF Downloaded

Document View/ Download Process



Search Process



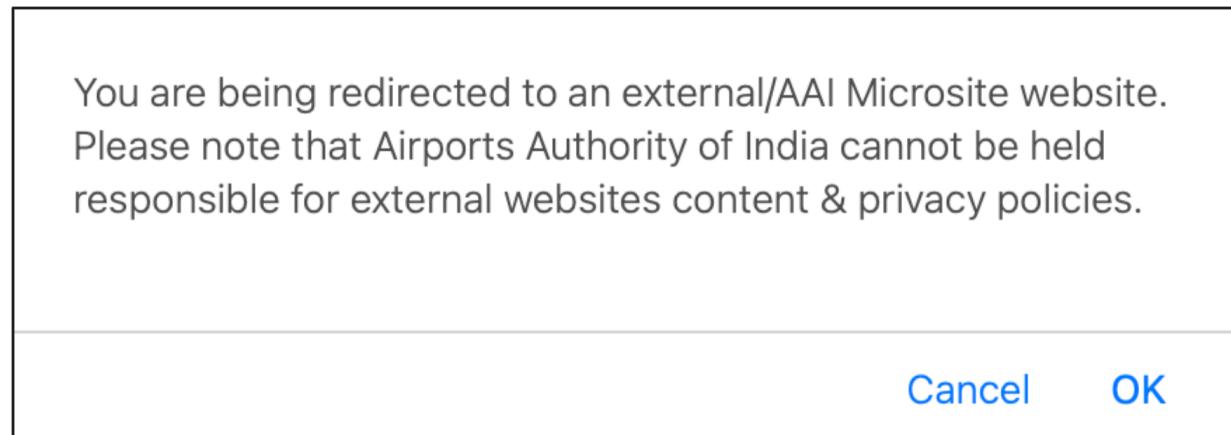
Business Menu

6.6 STAGE 5: PLAN THE DESIGN

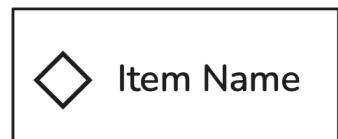
6.6.1 Landing Page

Airports Authority of India	Business Info	Services	Tenders	Vigilance	Public Info	Profile
Page Title / Service Name						
Quick Links						
Important Links						
Right to Information	Sitemap	Media & Press	Legal	FAQs		
Standard Footer						

6.6.2 Redirect Pop-up



6.6.3 Quick Link Item



6.6.4 Article Card



Article Title ↗

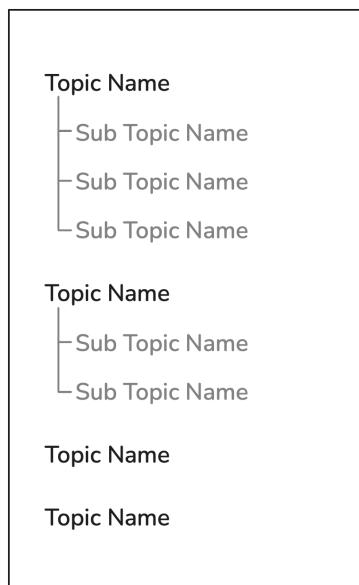
Article Body

6.6.5 Slideshow Card



← 2 / 8 →

6.6.6 Navigation Side Bar



Topic Name

- Sub Topic Name
- Sub Topic Name
- Sub Topic Name

Topic Name

- Sub Topic Name
- Sub Topic Name

Topic Name

Topic Name

6.7 STAGE 6: DRAFT DESIGN

The screenshot shows the homepage of the Airports Authority of India (AAI) website. The header features the AAI logo and navigation links for Airports, Business Info, Services, Tenders, Vigilance, Public Info, and a user profile icon. Below the header is a search bar with the placeholder "Find Airports, Tenders, RTIs and more" and a "Search Anything" button. A row of buttons includes Careers, Media, Medical, Lost & Found, CPP Portal, MoCA, Gagan, Grievances, SHG Application, and RCS UDAN. The main content area has a large central placeholder box. Below it, a horizontal menu bar offers Important Notices, Latest Tenders, and Photo Gallery. The page displays three notices: "Notice Security Measures Enhanced at All Airports" (with a placeholder box), "Notice New Baggage Allowance Policy" (with a placeholder box), and "Notice Airport Expansion Project Update" (with a placeholder box). At the bottom, there's a section for "Important Links" with links to Media/Press Releases and Training Institutes, each followed by a right-pointing arrow. The footer contains contact information for Indian Airport Authority Headquarters, including address, phone, fax, and email details, along with a "Contact Us" link.

Airports Authority of India

Find Airports, Tenders, RTIs and more **Search Anything**

Careers Media Medical Lost & Found CPP Portal MoCA
Gagan Grievances SHG Application RCS UDAN

Important Notices **Latest Tenders** **Photo Gallery**

Notice
Security Measures Enhanced at All Airports
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque vel dignissim eros. In blandit nibh vel eleifend imperdiet. Sed tempus mattis nulla, vitae tempus nunc iaculis ac. Ut convallis pulvinar vulputate. Aliquam erat volutpat. Vestibulum dignissim posuere urna non consectetur.

Notice
New Baggage Allowance Policy
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque vel dignissim eros. In blandit nibh vel eleifend imperdiet. Sed tempus mattis nulla, vitae tempus nunc iaculis ac. Ut convallis pulvinar vulputate. Aliquam erat volutpat. Vestibulum dignissim posuere urna non consectetur. Nullam efficitur ultrices odio commodo iaculis. Morbi tempor nunc at elit malesuada molestie.

Notice
Airport Expansion Project Update
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque vel dignissim eros. In blandit nibh vel eleifend imperdiet. Sed tempus mattis nulla, vitae tempus nunc iaculis ac. Ut convallis pulvinar vulputate. Aliquam erat volutpat. Vestibulum dignissim posuere urna non consectetur. Nullam efficitur ultrices odio commodo iaculis.

Important Links

Media/Press Releases →
Training Institutes →

Contact Us

Indian Airport Authority Headquarters
Rajiv Gandhi Bhawan, Safdarjung Airport,
New Delhi-110003
Phone: +91-11-12345678
Fax: +91-11-98765432
Email: contact@indianairportauthority.gov.in

Home Page

Airports Authority of India

Airports Business Info Lost & Found Tenders Vigilance Public Info

Find Airports by Name or City Find Airports

Mumbai Delhi Kolkata Hyderabad Bengaluru Chennai
Kochi Pune Coimbatore Goa

Embassy

Conveniences

Tourist Place

Hotels

Eat & Dine

Achievement

Media Center

FAQs

Important Links

Media/Press Releases →

Training Institutes →

Contact Us

Indian Airport Authority Headquarters
Rajiv Gandhi Bhawan, Safdarjung Airport,
New Delhi -110003
Phone: +91-11-2345678
Fax: +91-11-98765432
Email: contact@indianairportauthority.gov.in

Airports Menu

The screenshot shows the 'Status of Tenders/Contracts' section of the AAI website. The table lists five entries:

S. NO.	TITLE	UPLOAD DATE
1	Tender in Progress for Infrastructure Development and Modernization Project in August 2025	22-09-2025
2	Tender Published for Airport Terminal Expansion and Construction Services in August 2025	22-09-2025
3	No Response Tender for Maintenance and Repair Services Contract in August 2025	22-09-2025
4	Tender Published for Supply of Equipment and Materials for Aviation Operations in July 2025	13-08-2025
5	Tender in Progress for Technical Consultancy and Advisory Services Project in July 2025	13-08-2025

Below the table is a navigation bar with buttons for page numbers 1 through 9, and links for 'next >' and 'last »'.

Tenders Page Table Component

The screenshot shows the 'Status of Tenders/Contracts' section of the AAI website with additional filter options above the table:

Region	Airport	Department	Status
Last Sale Date	Keyword Search		

The table lists the same five entries as the previous screenshot.

Tenders Page Table Component with Filter Option

To

Airports Authority of India

Airports Business Info Lost & Found Tenders Vigilance Public Info

Citizen Charter
Right to Information
Public Grievance
Public Documents
AAI Startup Initiative
Sports Control Board
Major Procurement Projections
No Cost No Commitment Policy
Latest Updates on Rules & Policies
AAI ISO Certification
Best Practices
Dashboard on Backlog Vacancies

Innovate for Airports

Startup India, a flagship initiative of the Government of India, aims to build a strong ecosystem for nurturing innovation and Start-ups in the country that will drive sustainable economic growth and generate large scale employment opportunities. The launch of this initiative presented an opportunity for Airports Authority of India (AAI) to embark upon a journey towards innovative solutions, specifically crafted for the Indian Aviation Industry, and AAI in particular, while nurturing on the strength of the vast Indian Start-up ecosystem.

Indian Civil Aviation industry is growing at a very rapid pace of more than 12% annually over the last decade, barring the Covid years. It means tripling of the sector in next 10 years or so. The way, Indian Civil Aviation sector is growing, it is necessary to create opportunities of innovation for Indian companies and Start-ups to participate in this growth, and to promote the AtmaNirbhar Bharat initiative of Government in all functional areas of Airports Authority of India (AAI) – including Airports, ANS and other ancillary industries.

Keeping this objective in mind, AAI, has reviewed its Start-up policy (AAI start-up Policy-2024) by providing more definitive path for participation of Start-up companies in finding solutions to the problems and challenges faced by AAI, and scaling up those solutions, not only in the future procurement for AAI but also for delivering to the rest of the world. AAI Start-up policy 2024 is expected to increase participation of Start-ups very significantly.

Earlier, Airports Authority of India launched its Start-up Policy in January 2019. This Start-up policy also provided Start-ups an excellent opportunity to work with Airports Authority of India towards customizing and developing airport relevant innovations as well as pilot testing them at airports across the country for more efficient airports and better passenger experience. Following solutions were developed under Start-up Policy 2019.

Solutions Developed Under Start-up Policy 2019 [AAI Startup Policy](#)

Solution 1 : iNetra
Solution 2 : S-VDGS
Solution 3 : SWAAIM
Solution 4 : AMCOMS

Public Info Page with Information Card

6.7 STAGE 7: TEST THE DESIGN WITH USERS

The design was shared with some of our peers for testing, and received valuable feedback on how transformative the redesigned webpage is and what more could be improved. Many appreciated the cleaner layout, better navigation flow, and modern aesthetic. Some responses focused on a comparative analysis between the old and new versions. A few peers suggested that certain sections still feel slightly cluttered and could benefit from better spacing. Overall, the feedback was positive, with constructive criticism helping us identify areas for further refinement.

7. WEB DESIGN PRINCIPLES:

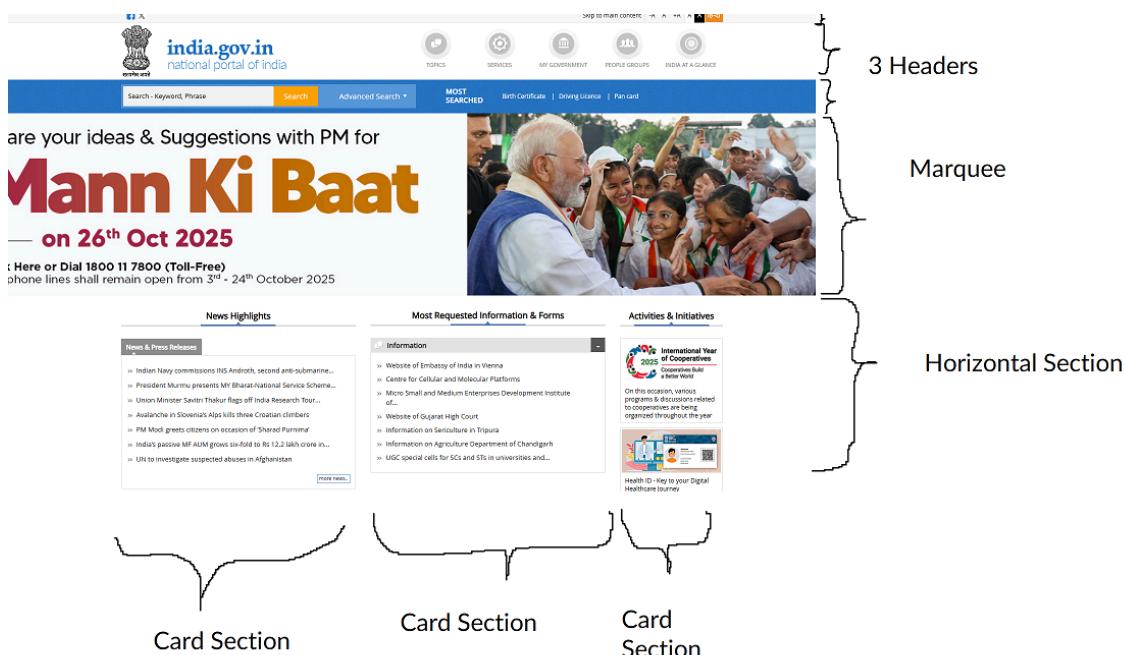
- The original design uses a web page and is designed for viewing from a web interface. Though there is an option of optimizing for a mobile interface, that would be less formal and doesn't work conceptually for a government portal.
- A web interface also offers more space and is better for viewing large texts. It also makes it easier to view the many different options available at any time.

7.1 Know Your Users:

- The website acts as an information portal, so its users mainly come to the website to get some pieces of information (usually just one), rather than do a complex action or series of actions.
- It is important to the users that information is presented clearly and in an organized manner so that it is easy to parse and access
- It is unlikely that users in the target demographic of this website will be familiar with other parts of the Internet

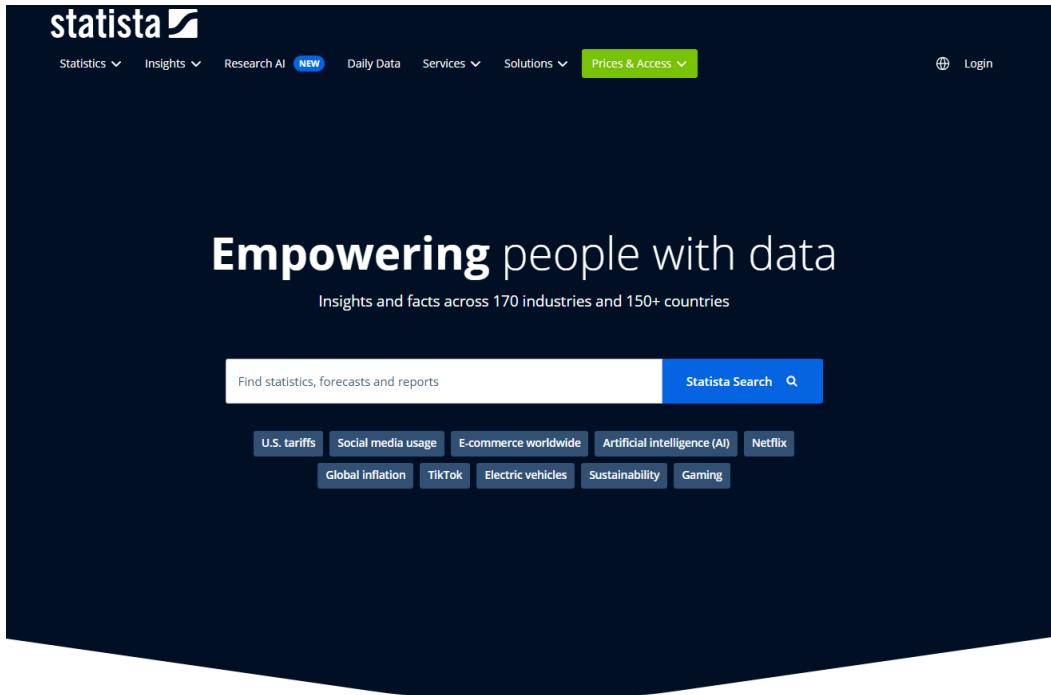
7.2 Familiar Patterns

- Government portals such as this website follow a similar pattern



- While this is a good framework, it needs to be implemented well and cleanly. This layout has a lot of information and can overwhelm users, especially first time users

- Apart from other government portals, there are other information access platforms that we can look to. Platforms like Google and ChatGPT have very simple UI. They simply ask the user for a request and fulfill the request as best as they can
- A search bar can be included and made much more prominent



- This webpage scrolls down to show more details but new users can easily understand the concept of the website and how to use it

7.3 Consistency

- The AAI website is very inconsistent except in its color scheme



- Here, every tab on the menu is of a different size, the same row in the top right corner mixes symbols and fonts with no real thought behind it. This is explained further under Schneiderman's rules (Section 4.1)

7.4 Create Visual Hierarchy

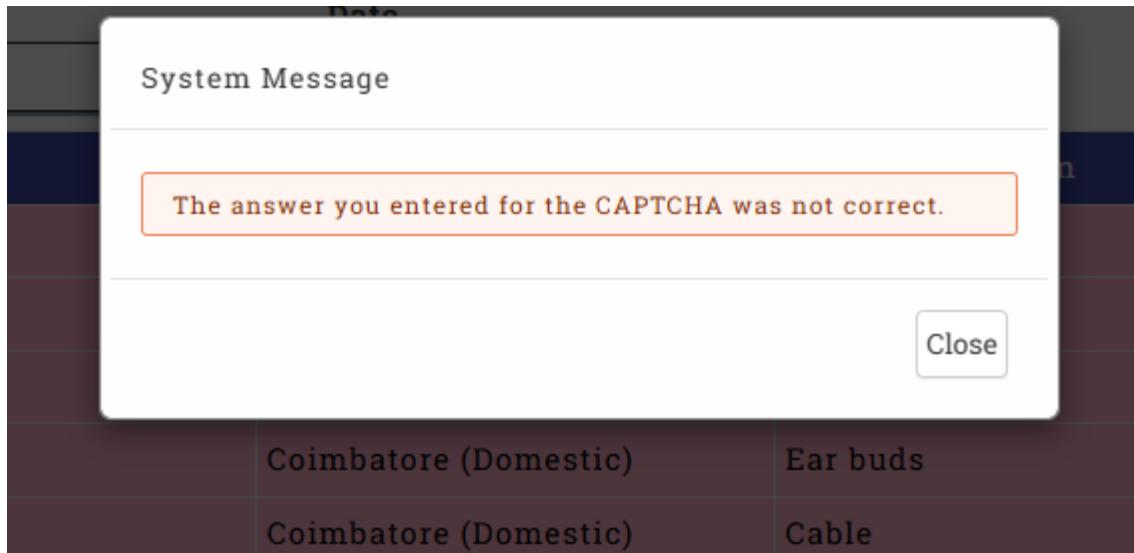
- Most of the website is highly hierarchical due to the nature of the website itself (information based). However, the hierarchy can be redesigned from a task oriented approach to make it more efficient. The tree can also be made more narrow so that users are not overloaded with too many choices.

7.5 Feedback and Accident Prevention

- 90% of the use case of this website is read only information access, only a very small number of actual actions can be taken by users to affect change, such as initiating a claim on a lost and found item.

The screenshot shows a mobile application interface for initiating a claim. At the top, there is a header "Initiate Claim" and a close button (X). Below the header are two input fields: "Email *" and "Mobile/Cell Phone *". Underneath these is a larger input field labeled "Description *". A placeholder text "Please enter the detailed description of the lost item/items." is visible inside this field. Following the description field is a section titled "CAPTCHA" with the sub-instruction "This question is to prevent automated spam submissions.". Below this is a math question "Math question *": "5 + 12 =". A placeholder text "Solve this simple math problem and enter the result. E.g. for 1+3, enter 4." is shown next to the input field. At the bottom of the form are a "Submit" button and a "Close" button. The footer of the screen displays some navigation links: "COIMBATORE (Domestic)", "Data Cable", and the date "03-09-2022".

- On entering completely wrong information (non-existent email and phone number with less than 10 digits) and failing the captcha, we get the following error.



- The system did not check the validity of the actual information submitted and only the captcha itself. There is also no easy reversal to get back to the claim, instead the entire page reloads and the item must be found again

7.6 Overloading interface with controls

- The only control mechanism of the website is clicking through hyperlinks to traverse the webpage. However, the sheer number of options can overwhelm the user. This is only a problem for the homepage and certain sub pages, most sub pages are organized well and have very few sub headings

Fig(7.6.1)

Actual Used Space

AIRPORTS AUTHORITY OF INDIA

AAI News & Announcements

- Second edition of SUGAM booklet
- Selection for The Post of Member (Opa), AAI a Schedule A' CPSE
- Selection for The Post of Member(HR) in AAI
- Policy for Research and Development and the Manual for the Civil Aviation Research Organization (CARO)

[View More](#)

Contact Number

- Annual maintenance contract of residential colony including temporary ASU offices, OIC office etc. and other carved out areas of AAI at Trivandrum Airport for year 2025-27
- Operation & Routine Maintenance of Gamma & Dunkerley Make Baggage Handling System including AICMC of

[View More](#)

Photo Gallery

AAI celebrated 'Yatri Sewa Diwas' across all airports on 17th Sept. 2023

AAI Services

- AirSewa
- eTenders
- AVSAR
- Aviation Security Training Institute (ASTI)
- AAI Fire Training Institute, New Delhi Centre
- AAI Fire Training Institute, Kolkata Centre
- CATC, Allahabad
- Indian Aviation Academy
- AAI Startup Initiative
- Other AAI Websites Link
- External Links
- Union Election
- NAC
- GST
- AAI EDCPS
- Arbitration & Mediation
- Voluntary Safety Reporting
- Digi Yatra
- App Based Cab Aggregator
- FTO Slot Portal
- Press Releases
- Latest News
- Coverage
- Photo Gallery

Corporate Address

Airports Authority of India,
Rajiv Gandhi Bhawan,
Safdarjung Airport,
New Delhi-110003
Ph : 011-24632950

Great Governance with Your Partnership

[Right to Information](#) | [Complaints](#) | [Feedback](#) | [AAI Email](#) | [Glossary](#) | [Privacy Policy](#) | [Disclaimer](#) | [Terms and Conditions](#) | [SIRs](#)

- In this webpage, the links marked in green are possible interaction points, there are more than 50 points that the user has to go through at the home page, new users are easily overwhelmed, especially with the clustered interface

7.7 Give more control to experienced websites

- There is only one way to access any information on this website, there is a search function however, it is practically useless to find any information. There needs to be multiple ways to access information with varying levels of specificity and depth, such as a natural language query processor, menu based navigation and macros

7.8 Never show a blank page to users



- Instead of this, there needs to at least be a message saying the requested data could not be found or does not exist. The webpage should be responsive to the data retrieved from the database

7.9 Don't Overcomplicate

- This directly follows from the overloading interface concept. In Fig(7.6.1), the actual space used by the website is only 50% of the available space, the website is not responsive to the actual dimensions of the website but is fixed.
- This clusters all the information into one blob of text that can only be parsed through experience or effort

Website Design Screenshots:

The screenshot shows the homepage of the Airports Authority of India (AAI) website. At the top, there is a navigation bar with links for Lost & Found, Airports, Business Info, Services, Tenders, Vigilance, and Public Info. Below the navigation bar is the AAI logo and the text "Airports Authority of India". A search bar with the placeholder "Find Airports, Tenders, RTIs and more" is positioned next to a blue button labeled "Search Anything". Below the search bar is a horizontal menu with links for Careers, Media, Medical, Lost & Found, CPP Portal, MoCA, Cagan, Grievances, SHG Application, and RCS UDAN. The main content area features a box titled "Items Prohibited in Hand / Carry-on Baggage" with a sub-section "Don't — Banned on Person/Carry-on". It includes a descriptive text about banned items and a link to "View full list".

Home Page

The screenshot shows the homepage of the Chennai International Airport website. At the top, there is a navigation bar with links for Lost & Found, Airports, Business Info, Services, Tenders, Vigilance, and Public Info. The 'Airports' link is underlined, indicating it is the current page. Below the navigation bar, the title 'Chennai International Airport' is displayed next to the AAI logo. A search bar with the placeholder 'Find embassies, tourist spots and more' and a 'Search Anything' button are also present. Below the search bar, there are four category buttons: Arrivals, Departures, Tourist Spots, and Transport Services. The main content area features nine rounded rectangular boxes arranged in three rows of three. Each box contains a blue icon and a label: 'Embassy' (document icon), 'Conveniences' (question mark icon), 'Tourist Places' (location pin icon) in the first row; 'Hotels' (camera icon), 'Eat and Dine' (trash bin icon), 'Achievement' (shopping cart icon) in the second row; and 'Media Center' (book icon), 'FAQs' (clock icon) in the third row.

Airports Page

Important Links

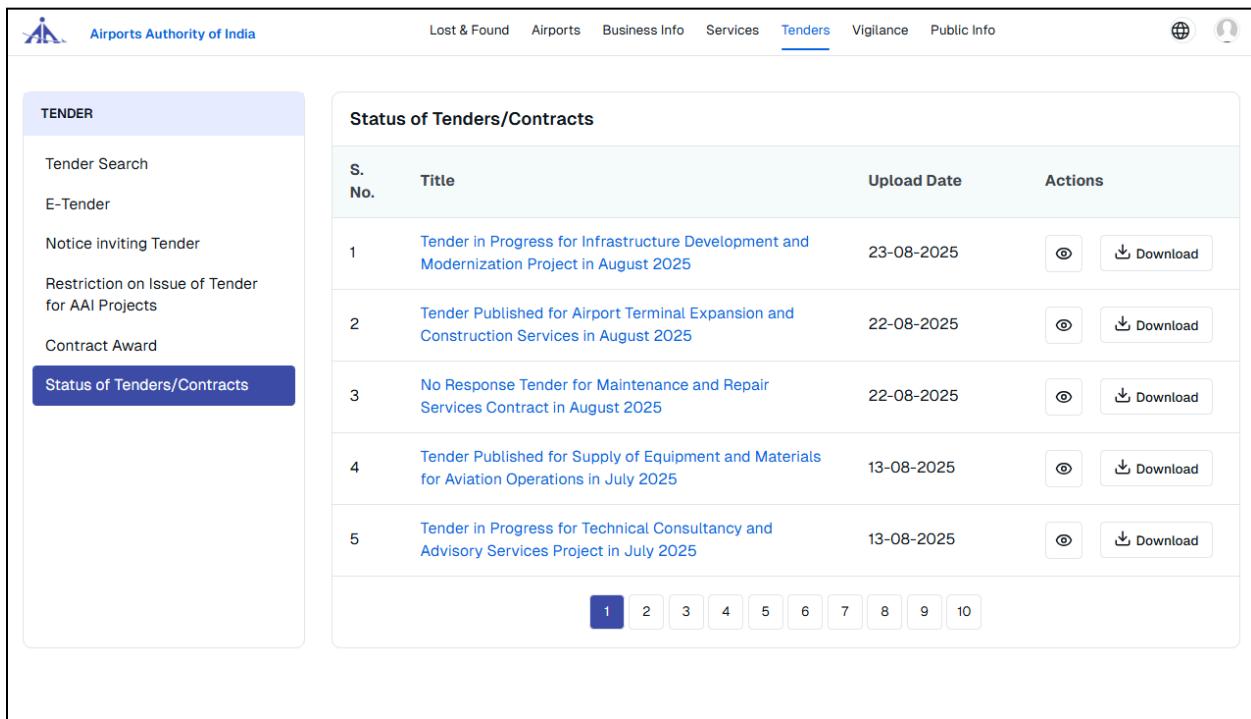
Contact Us

Indian Airport Authority Headquarters
Rajiv Gandhi Bhawan, Safdarjung
Airport,
New Delhi: 110003
Phone: +91-11-12345678
Fax: +91-11-98765432
Email:
contact@indianairportauthority.gov.in

Media/Press
Releases

Training Institutes

Footer Component



The screenshot shows the Airports Authority of India website's Tenders page. The top navigation bar includes links for Lost & Found, Airports, Business Info, Services, Tenders (which is underlined), Vigilance, and Public Info. There are also icons for globe and user profile.

The main content area has a sidebar titled "TENDER" containing links for Tender Search, E-Tender, Notice inviting Tender, Restriction on Issue of Tender for AAI Projects, and Contract Award. Below this is a button labeled "Status of Tenders/Contracts".

The main content area features a table titled "Status of Tenders/Contracts" with columns for S. No., Title, Upload Date, and Actions. The table lists five entries:

S. No.	Title	Upload Date	Actions
1	Tender in Progress for Infrastructure Development and Modernization Project in August 2025	23-08-2025	
2	Tender Published for Airport Terminal Expansion and Construction Services in August 2025	22-08-2025	
3	No Response Tender for Maintenance and Repair Services Contract in August 2025	22-08-2025	
4	Tender Published for Supply of Equipment and Materials for Aviation Operations in July 2025	13-08-2025	
5	Tender in Progress for Technical Consultancy and Advisory Services Project in July 2025	13-08-2025	

At the bottom of the table, there is a navigation bar with numbers 1 through 10, where number 1 is highlighted in blue.

Tenders Page

Airports Authority of India

Lost & Found Airports Business Info Services Tenders Vigilance **Public Info**

PUBLIC INFO

- Citizen Charter
- Right to Information
- Public Grievance
- Public Documents
- AAI Startup Initiative**
- Sports Control Board
- Major Procurement Projections
- No Cost No Commitment Policy
- Latest Updates on Rules & Policies
- All ISO Certification
- Best Practices
- Dashboard on Backlog Vacancies

Innovate for Airports

Startup India, a flagship initiative of the Government of India, aims to build a strong ecosystem for nurturing innovation and start-ups in the country. Airports Authority of India is embarking on a journey towards innovative solutions, especially crafted for the Indian Aviation industry.

To achieve this objective, AAI has released its Start-up Policy 2024 by providing more definitive paths for participation of start-ups in finding solutions to the problems and challenges faced by AAI.

Solutions Developed Under Start-up Policy 2019

[AAI Startup Policy](#)

- Solution 1: Novtra**
- Solution 2: S-VDOS**
- Solution 3: SWAAM**
- Solution 4: AMCOMS**

Public Info Page

Airports Authority of India

Lost & Found **Airports** Business Info Services Tenders Vigilance Public Info

Find Airports by Name or City

Find Airports

Mumbai Delhi Kolkata Hyderabad Bengaluru Chennai Kochi Patna Coimbatore Goa

Airport Home Page

 Airports Authority of India
 Lost & Found | Airports | Business Info | Services | Tenders | Vigilance | Public Info
🔍

Lost & Found Catalogue

Search

All Airports
▼



Electronics - Earphones

Indira Gandhi International Airport (Delhi)
Black earphones found near security check area.
Contact: +91 9909492069
Email: tmgr_delhi@aal.aero

Initiate Claim



Electronics - Laptop

Chhatrapati Shivaji International Airport (Mumbai)
Silver laptop left near boarding gate.
Contact: +91 9123456780
Email: tmgr_mumbai@aal.aero

Initiate Claim



Personal Belongings - Wallet

Chennai International Airport (Chennai)
Brown leather wallet found near baggage claim.
Contact: +91 9988776655
Email: tmgr_chennai@aal.aero

Initiate Claim



Personal Belongings - Ring

Netaji Subhas Chandra Bose International Airport (Kolkata)
Gold ring found near parking lot.
Contact: +91 9876501234
Email: tmgr_kolkata@aal.aero

Initiate Claim



Cards/Documents - Passport

Chennai International Airport (Chennai)
Blue passport found near check-in counter.
Contact: +91 9123456789
Email: tmgr_chennai@aal.aero

Initiate Claim



Personal Belongings - Sunglasses

Chennai International Airport (Chennai)
Black sunglasses found near food court.
Contact: +91 9988776650
Email: tmgr_chennai@aal.aero

Initiate Claim

Lost and Found Page



Items Banned in Hand / Carry-on Baggage

The following groups list items that are prohibited from being carried on the person or in hand/cabin baggage on flights operating from civil airports in India and on Indian-registered aircraft from abroad. This is an indicative list — commonsense and airport/airline instructions also apply.

Personal Items

Small personal items that can cause safety concerns are not allowed in carry-on baggage.

- Lighters
- Scissors — metal with pointed tips
- Realistic replica of toy weapons

Sharp Objects

Objects with sharp edges or points which can be used to injure.

- Box cutters
- Ice axes / ice picks
- Knives of any length and type (except round-bladed butter knives and plastic cutlery)
- Meat cleavers
- Razor-type blades (e.g., utility blades) — excluding safety razors
- Sabers, swords
- Scissors — metal with pointed tips (again included here for emphasis)

Sporting Goods

Sports equipment that can be repurposed as a weapon.

- Baseball bats
- Bows and arrows
- Cricket bats
- Golf clubs
- Hockey sticks
- Lacrosse sticks
- Pool cues
- Ski poles
- Spear guns

Do's and Don'ts Page