

Optimizing the ioMoVo Digital Asset Management Platform

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Executive Summary

This case study evaluates the user experience (UX) and usability challenges of **ioMoVo**, an AI powered Digital Asset Management (DAM) platform. Designed to help organizations consolidate, manage, and retrieve massive volumes of digital files from multiple connected cloud storage services, the system possesses robust back-end functionality. However, because the platform was designed and engineered primarily by developers rather than UX designers, it suffered from severe **feature creep**. This occurs when an abundance of complex features compromises overall usability and intuitive navigation.

Acting as UX consultants, our team executed a rigorous mixed methods UX research study. By pairing a baseline **Heuristic Evaluation** grounded in Jakob Nielsen's usability principles with **qualitative user interviews** and **quantitative usability testing**, we successfully mapped out critical friction points within the primary file retrieval journey. This case study unpacks our end-to-end process, empirical findings, and strategic UX recommendations.

The Challenge: Capability vs. Usability

The primary business objective of a Digital Asset Management platform is to centralize files that span across disparate machines and cloud drives, enabling teams to locate specific assets quickly using advanced search systems. ioMoVo's unique selling point (USP) relies on leveraging AI powered natural language processing to search through petabytes of data.

Despite these powerful back end capabilities, users experienced severe friction. The platform suffered from a critical mismatch between its complex functionality and its users' mental models, making basic operations feel unintuitive.

"How might we declutter, simplify, and make ioMoVo's platform intuitive to shorten the learning curve and steps between uploading data and connecting drives and softwares to later retrieving this data quickly, efficiently, and easily?"

To answer this, we analyzed two distinct phases of the user journey:

1. **The Input Data Flow:** The process of connecting external drives and uploading assets to create a single source of truth.
2. **The Retrieval Flow:** Leveraging traditional keyword algorithms, AI metadata tags, or hybrid search mechanics to easily locate files.

UX Research Methodology

To establish an evidence-based redesign roadmap, we implemented a structured, multi-phase UX research plan.

[Phase 1: Discovery] -> [Phase 2: UX Audit] -> [Phase 3: User Testing] -> [Phase 4: Synthesis]

Phase 1: Heuristic Evaluation

We initiated our research with individual heuristic audits conducted by three UX researchers. The results were compiled to identify overlapping issues, ensuring a highly objective baseline. This evaluation utilized **Jakob Nielsen's 10 Usability Heuristics**.

Phase 2: Participant Screener & Recruitment

Due to academic constraints, participant selection was targeted to ensure high quality qualitative feedback. We drafted a strict screener to filter for creative professionals, such as video editors and design managers, who manage large volumes of digital assets in their daily workflows. Six qualified participants were selected to complete the study, unlocking approximately 85% of core usability issues based on established industry research.

Phase 3: Mixed Methods Testing

Each testing session lasted approximately 60 minutes and followed a two fold structure to capture both behavioral and attitudinal data:

- **Qualitative In-Depth Interviews:** Utilizing open ended, non leading questions to evaluate mental models, file management habits, and existing pain points with competitor platforms.
- **Think-Aloud Usability Testing:** Participants completed five critical tasks on the live platform while verbalizing their thought processes.

To measure performance objectively, we tracked key performance indicators (KPIs):

Key Performance Indicator	Definition
Task Success Rate	Percentage of participants who successfully completed each task.
Task Completion Time	Total time taken to navigate and execute a given workflow.
System Steps Taken	The total number of clicks and page transitions required.
Error and Loophole Rates	Non standard pathways or mistakes made during task execution.
Emotional Response	Observable frustration, confusion, or satisfaction.

Detailed Research Findings

Our research validated several initial hypotheses while uncovering new, critical usability gaps.

1. Hypothesized Usability Gaps (Validated)

The Home Screen Experience

- **Visual Cognitive Overload:** Four out of six users noted that the rotating, high contrast galaxy video background was distracting and significantly reduced text legibility.
- **Unclear Information Hierarchy:** Redundant buttons and icons populated the dashboard without clear visual hierarchy, leaving users confused about the primary call to action (CTA).
- **Irrelevant Content Modules:** Users expressed confusion regarding the inclusion of company blogs and announcements, which distracted from the core utility of the tool.

Flawed Search Architecture

- **Default Search Mismatch:** The core value proposition of ioMoVo is finding files using natural language (Relevance Search). However, the platform defaulted to standard Keyword Search.
- **Hidden Controls:** The dropdown menu to switch between Keyword and Relevance search was completely separated from the search bar.
- **User Impact:** Every single participant missed this setting. When they attempted natural language queries, the default keyword search returned poor, inconsistent results, leading to severe user frustration.

Complex File Sharing Modal

- **Confusing Jargon:** All participants were unsure of the meaning of the "CDN" acronym.
- **System Lack of Clarity:** Five out of six users could not distinguish between the two separate sharing links presented by the system.
- **Privacy and Trust Violations:** When users clicked "Delete CDN", the shared file remained accessible, raising severe security concerns. Additionally, the system accepted invalid or non user emails without warning or confirmation.

The Manual Sync Hurdle

[User Uploads File] -> [Assumes Auto Sync] -> [Runs Search Query] -> [Zero Results Found]
*Reason: Platform requires manual synchronization step after file upload.

- **Broken Mental Models:** Most users assumed that uploaded files would automatically sync and index. Instead, ioMoVo required users to manually select and sync files before they could be searched.
- **Poor Accessibility:** The visual distinction between a synced and unsynced file relied on a subtle color change (a small green "AI" tag versus a gray "AI" tag), which failed basic accessibility standards.

2. Newly Discovered Usability Gaps

Invisible Upload CTAs

- **Contextual Absence:** While the home page offered a prominent upload area, the actual cloud storage interface (ioCloud) lacked a clear, persistent "Upload" button.
- **Impact on Navigation:** Five out of six participants navigated back to the Home page just to upload a file because they missed the tiny upload icon clustered among eight other small tools at the top of the ioCloud screen.

Defective Filter Controls

- **Inflexible Selections:** If a user accidentally clicked a file format filter, they could not deselect it directly. They were forced to reset the entire modal to correct a single mistake.
- **Misleading Button Styling:** The "Clear Filter" action was styled as a prominent blue button. Due to standard UI patterns, many users clicked it thinking it was a "Submit" or "Apply" button, completely erasing their configurations.

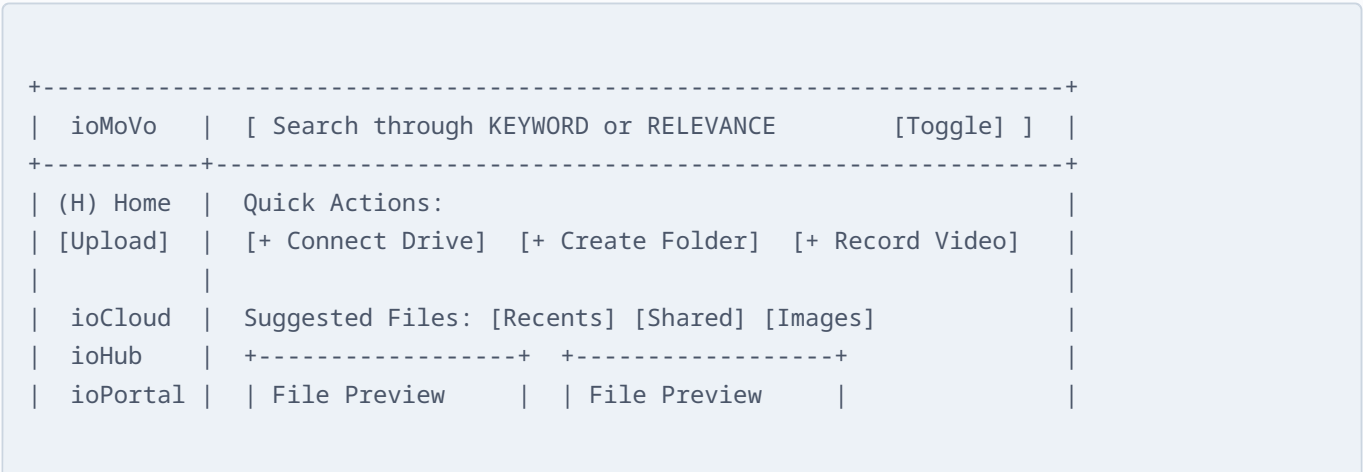
Proposed Design Solutions & Best Practices

To resolve these challenges without reinventing the wheel, we proposed redesign strategies anchored in standard design patterns popularized by industry leaders such as Google and Dropbox.

Reorganizing the Dashboard Architecture

We designed a high-fidelity homepage prototype to establish immediate cognitive clarity:

- **Persistent Primary Actions:** We introduced a bold, clearly defined "Upload" button in the left sidebar, mimicking the highly recognizable Google Drive design.
- **Quick Action Cards:** The main dashboard space was simplified to prioritize four essential tasks: Connecting Drives, Creating Folders, Recording Video, and Capturing Screens.
- **Search Integration:** The global search bar now features explicit placeholder text: *"Search through KEYWORD or RELEVANCE"*. It also integrates a clear toggle switch directly within the search input field to prevent input errors.



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Improving System Feedback

Following standard patterns from Google Drive, we proposed replacing the subtle notification bell ring with a floating bottom toast notification that confirms successful uploads and provides an immediate "Locate File" shortcut.

Overhauling the Share Interface

We recommended replacing the double link model with a single, clear modal. Users can set explicit permissions (such as Viewer, Commenter, or Editor) and generate a single copyable link, aligning with standard modern sharing flows.

Conclusion & Strategic Recommendations

Our research demonstrated that ioMoVo's primary challenge was not a lack of technological capability, but rather a severe lack of design usability. Feature rich products will inevitably fail to retain users if those features are hidden behind complex, confusing workflows.

To build on this study, we recommend the following next steps:

1. **Interactive Usability Testing:** Run task-based tests using our new high-fidelity prototypes to confirm that the proposed layouts successfully reduce task times.
2. **Card Sorting Studies:** Conduct open card sorting exercises with target users to redesign the system's information architecture and rename ambiguous modules like ioFlow and ioHub.
3. **Automated Synchronization:** Transition the platform from manual syncing to a default background auto sync model, aligning with modern cloud storage standards.