

OPTIMISING THE USER EXPERIENCE OF WEB BOOKMARKS

AUG 2023
MSc User Experience Engineering
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1st MAY - 28th AUGUST

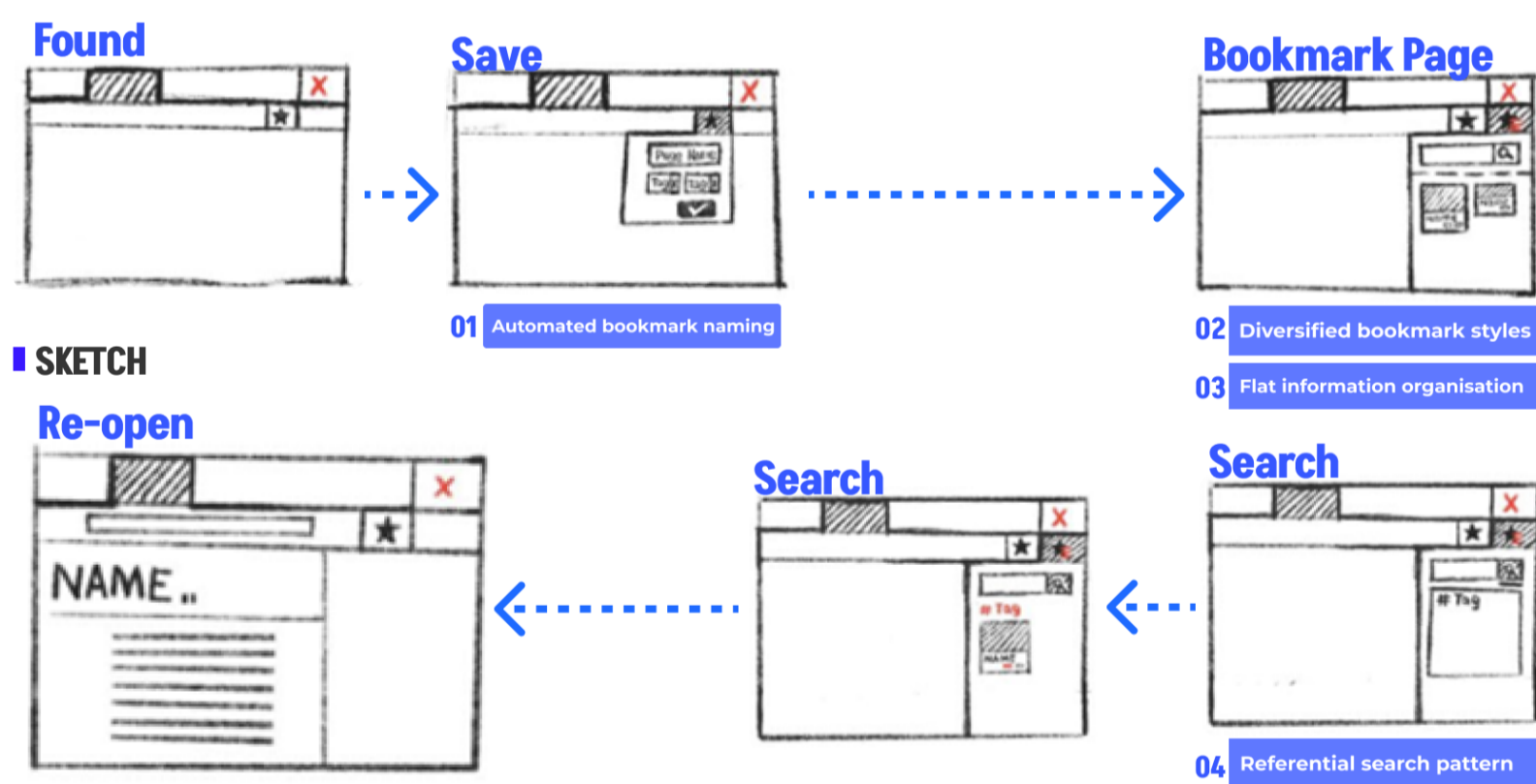
INTRODUCTION & BACKGROUND

The internet has become increasingly important in the lives of tech-savvy users, as we spend significant amounts of time searching for and consuming information online.

Similar to other personal data, when we encounter information, we make complex judgments about its expected future value. These judgments are crucial as our online behavior often involves information we've previously encountered. This led to the emergence of products that offer personal information management services, such as online bookmarks. However, due to changes in the online landscape, traditional bookmarks no longer meet users' needs. As a response to this, I undertook a design research initiative to optimize the current bookmark system structure.

CONCEPTION & SKETCH

After conducting user interviews and research, I proceeded to analyse the results. Building on these findings, I engaged in extensive discussions. With a focus on user goals and pain points, I designed relevant features to address their needs.



TEST & EVALUATION

I devised experiments considering both users' bookmarking intentions and the Bookmark Usage Attributes.



- Warm up
- TASK 01**
 - Task Introduction
 - Record Data
 - Completing Scale
- Interview
- TASK 02**
 - Task Introduction
 - Record Data
 - Completing Scale
- Interview

Task 01

Select one out of the given four webpages and save it as a bookmark in the favorites folder.

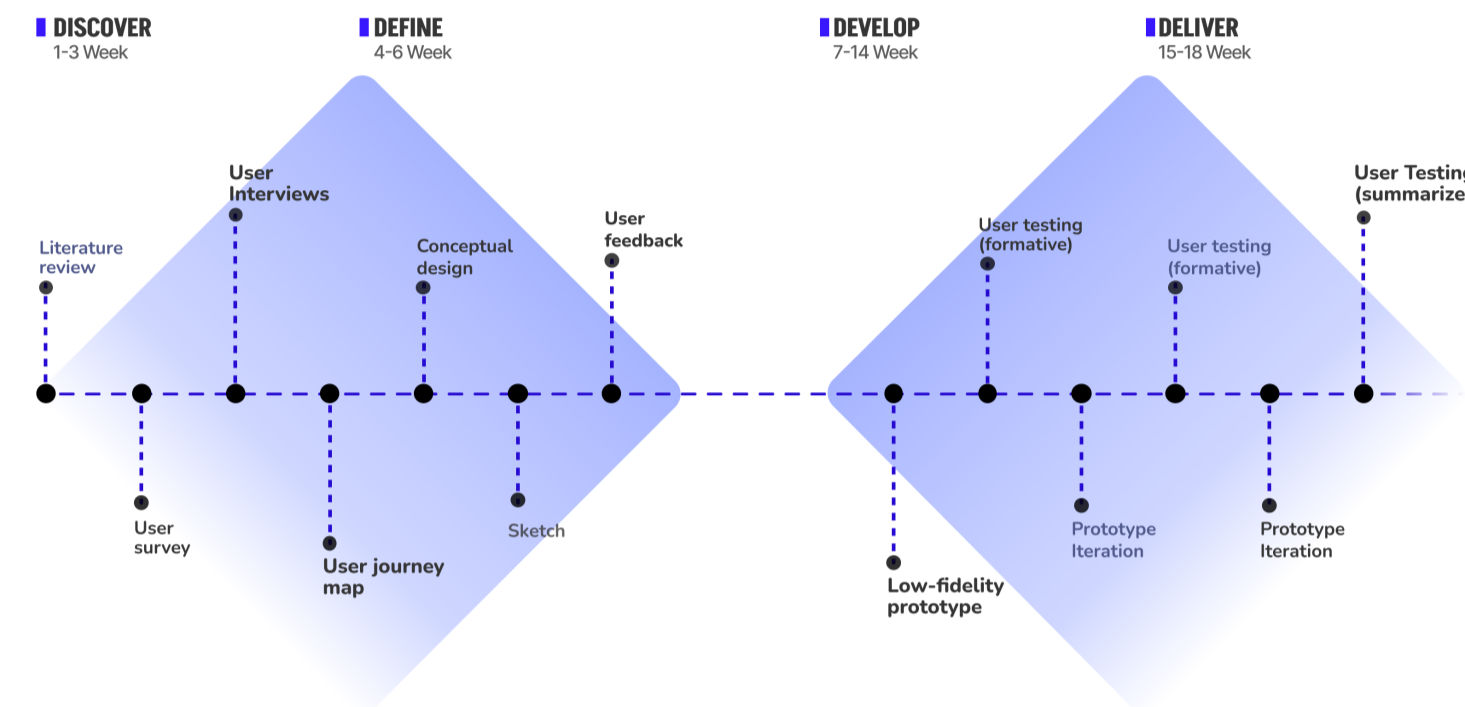
After 3 days

Task 02

The user accesses the Favorites page to locate previously bookmarked pages.

METHODOLOGY OF STUDY

The design project comprised four key steps: identifying issues in the initial research, designing solutions based on this, iterating through three rounds of user testing, and finally, analysing project performance to validate hypotheses.

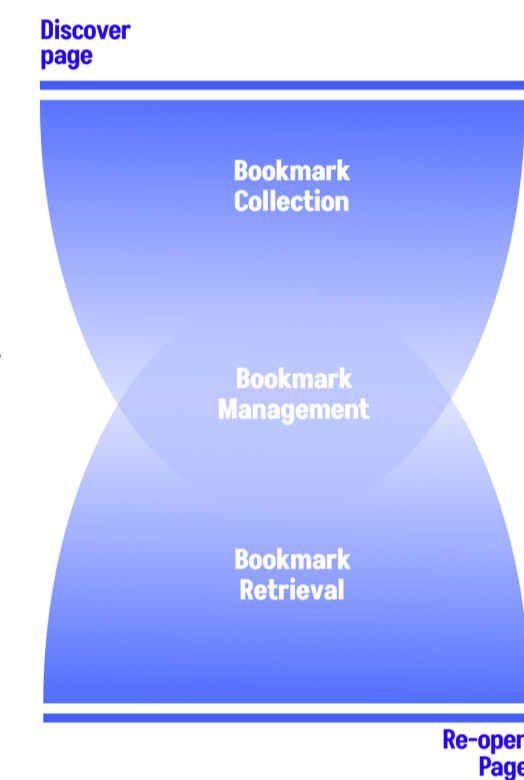


PROBLEM DEFINE

After gathering relevant background information through literature review, the researcher conducted user research. This research was primarily conducted through online surveys to gain insights into user habits and patterns of usage. A total of 32 participants took part in this research. The outcome included mapping out five user processes related to bookmark usage, along with identifying pain points within each of these processes.

LITERATURE REVIEW

- 01 Usage Scenarios:** As a "Revisit tool" is very common, most people choose to use bookmarks. Bookmarks are accepted by the general public because of their convenient and simple operating system and mode.
- 02 Current status of use:** Out of the participants, 92.4% possessed bookmarks. But, the utilization of bookmarks remained limited. Most users lack effective personal information management strategies, underscoring the demand for a tool with strong integration.
- 03 Limitations of use:** Repetitive actions during bookmark usage reduce user patience and simultaneously increase error rates. While classification systems are a prevalent organizational format for bookmarks, they can also lead to an irrational organizational structure.



- Collection:** During the collection phase, users are often unable to rationally categorize the current page, and are also unwilling to incur the time and cognitive costs of Editing bookmarks.
- Management:** In the management phase, users frequently give up on organizing bookmarks due to the disorderly and intricate hierarchy of bookmarked pages. Moreover, users point out that the uniform design styles within the bookmark system make management more challenging.
- Retrieval:** During the retrieval stage, users commonly struggle to locate specific locations due to the absence of prior bookmark organization and management. Additionally, memory limitations often hinder their ability to recall keywords and folders in which bookmarks are stored.

FUTURE WORK

Integrate bookmarks into browsers, emphasizing user-information interaction beyond storage. Research system performance in chaos, explore intelligent search's role in personal info management (semantic search, recommendations, context-aware search)

PROTOTYPE

After three rounds of iterations I produced a final version of the prototype, but it still had room for optimization

The prototype design includes several key features:

- Filter:** All, All, Frequently, Unreading, Date range.
- Referential search:** Search for tags, key words, and naming.
- Tag System:** A system for adding and managing tags for bookmarks.
- Visual Bookmarks:** A visual representation of bookmarked pages with thumbnails and titles.

DESIGN ITERATION

After users completed all the testing, we conducted qualitative interviews to gather their feedback on the user experience. These collected data points are invaluable for validating and iterating the product's design. Based on this data, I went through three rounds of product iteration, modifying both functionality and interface to address usability issues and enhance the feasibility and user experience of the design solution.

The design iteration process is shown through three stages:

- Low-Fidelity 1.0 (12/7 - 17/7):** Features include Automated bookmark naming, Referential search pattern, and Flat information organisation.
- Low-Fidelity 2.0 (21/7 - 28/7):** Features include Editing functions for labels and Emphasizing Search Function.
- High-Fidelity FINAL (3/8 - 12/8):** The final refined design.

I utilized Figma for prototype design, iterating on the Microsoft Edge Bookmarks user interface. I incorporated key design elements from that interface to ensure the prototype aligns with existing user habits and mental models.