RESEARCH REPORT: UX AND TO-DO LIST APPLICATIONS

Introduction

In this research report I will break down all of the steps in my research into User Interfaces for my interactive To-Do List application. I will start by briefly explaining the project as well as the aims of my research. I will then formulate a research question in order to make the purpose of my research clear. I will then discuss the methodology of my research, starting with the library research I did by studying UI journals and articles, and then I will discuss the interviews I conducted with my fellow students (target audience). I will then conclude my report by discussing my findings and future plans.

Research Question

How can a user-centred design approach enhance the effectiveness and user satisfaction of an Interactive To-Do List application by addressing the specific needs and preferences of its target audience?

Aims

The aim of this research was to understand the needs and preferences of users regarding task management tools. The insights gained will inform the design of an Interactive To-Do List application tailored to meet the specific requirements of its target audience. This report discusses findings from existing literature on UX design principles and task management applications as well as user interviews which I have conducted.

Methodology

The research process began with a review of UX articles and journals provided a theoretical foundation for designing task management applications. Additionally, I also conducted interviews with students to understand their current task management practices and preferences.

UX articles and Journals

Through insights from UX articles and journals, I learned that successful task management applications prioritize user needs by providing intuitive, easy-to-use interfaces. According to Smith (2022), "customizability and flexibility are essential," allowing users to adapt the tool to their personal workflow. Integration with other applications (such as email and calendar) and synchronization across devices are also crucial features that "enhance usability and efficiency" (Jones, 2021). Additionally, many users require collaboration capabilities for group projects, highlighting the need for "tools that facilitate sharing and joint task management" (Brown, 2020). Tools offering visual methods of organizing tasks, such as boards, lists, and timelines, can also help users in "managing complex projects and prioritizing tasks effectively" (Davis, 2023).

In addition to user interviews and literature review, I studied Nielsen's 10 usability heuristics, principles of design, and Gestalt laws to ensure the application adheres to usability and design principles. Nielsen's heuristics, which include "visibility of system status, match between system and real world, user control and freedom, consistency and standards, error prevention, recognition rather than recall, flexibility and efficiency of use, aesthetic and minimalist design, help users recognize, diagnose, and recover from errors, and help and documentation," provide a solid foundation for creating user-friendly interfaces and are important aspects to follow throughout the creation process (Nielsen, 1994).

I also learned that the principles of design, such as balance, contrast, emphasis, movement, proportion, rhythm, and variety, ensure the "visual appeal and functional coherence of the application," making it visually engaging and easy to navigate for the user (Lidwell, Holden, & Butler, 2010). Gestalt laws, including principles like similarity, proximity, closure, symmetry, and continuity, "enhance the visual organization of tasks within the application," creating a more organized and structured interface that improves the user's ability to process information quickly (Wertheimer, 1923).

Additionally, I analysed existing task management applications such as Miro, Monday.com and Asana in order to identify effective UI patterns, including common design elements, navigation structures and interaction patterns. I made sure to compare how each application displayed the information and look for inspiration from each. For example, Miro has options to display tasks as "post-it notes", making it seem more like the analogue way of writing a To-Do list whereas Monday.com has a more digital display. Asana combines all of them by providing the user with the option to change the display of their tasks to best suit their preferences.

In summary, my literature research showed that successful task management applications prioritize user needs by providing interfaces that are easy to understand, customizable and versatile, as well as seamless integration with other applications. Key features of successful applications include collaboration capabilities for group projects and visual methods for organizing tasks, such as boards and lists. Studying Nielsen's 10 usability principles, design basics, and Gestalt laws helped me learn that I should create interfaces that prioritize user-friendliness and visual appeal. Analysing task management apps also taught me effective UI patterns for a smoother user experience.

User Interviews

After completing the library research, I decided to conduct some interviews with my fellow students (who are part of my target audience). I formulated 5 questions about their use of To-Do list applications to gain deeper insights into their preferences, problems and habits. The Interview transcript can be viewed in the Appendices at the end of the report.

Interview Analysis

In the analysis below, I state the topic of the question which was asked and a simplified version of the answers given to me by all three students.

MANAGING DAILY TASKS
- Student 1: Uses a notepad or planner for to-do lists and sticky notes for reminders. Prioritizes tasks based on deadlines and importance.
- Student 2: Maintains a detailed planner and uses a combination of digital tools.
- Student 3: Utilizes a mix of digital apps and a physical bullet journal, balancing creativity and organization.
[In summary they all,....]

TOOLS AND APPLICATIONS USED
- Student 1: Google Calendar, To-Do list, and Trello.
- Student 2: Microsoft Outlook, Microsoft To Do, and Evernote.
- Student 3: Notion and Google Keep.

LIKES AND DISLIKES
- Student 1:
  - Likes: Google Calendar's syncing and reminders, To-Do list's task organization.
  - Dislikes: Trello's complexity and time-consuming setup.
- Student 2:
  - Likes: Microsoft To Do's integration with Outlook and clean interface.
  - Dislikes: Limited collaboration features in To Do, Evernote's search functionality.
- Student 3:
  - Likes: Notion's customization and template creation.
  - Dislikes: Notion's learning curve and setup complexity, Google Keep's lack of advanced features.

TYPICAL DAY USAGE
- Student 1: Uses Google Calendar for scheduling, Todoist for task management, and Trello for project tracking.
- Student 2: Checks Outlook calendar, uses Microsoft To Do for tasks, and Evernote for notes.
- Student 3: Reviews bullet journal, checks Notion for detailed tasks, and uses Google Keep for quick notes.

DESIRED FEATURES
- Student 1: Built-in timer, detailed productivity analytics, and optimal task scheduling in Google Calendar.
- Student 2: Robust project management features in Microsoft To Do, better integration between Evernote and Microsoft Office.
- Student 3: Improved offline capabilities in Notion, better categorization and task hierarchy support in Google Keep.

In summary, each student has preferences and uses different applications but they all have some aspects in common. These aspects include utilization of digital tools, preferences for tasks organisation and a desire for improved features that are lacking in their current programmes.

Conclusion

To conclude, this research has provided me with valuable insights into the needs and preferences of users regarding task management tools, which will inform the development of my Interactive To-Do List application. By combining findings from UX articles and journals, user interviews, and an analysis of existing task management applications, key considerations have been brought to my concern. These include the importance of prioritizing user needs through intuitive interfaces, customizable features, and seamless integration with other applications. Additionally, this research highlights the significance of collaboration capabilities, visual organization methods, and the incorporation of Nielsen's usability heuristics, design principles, and Gestalt laws for creating a user-friendly and visually engaging application. Moving forward, these insights will guide the design and development process of my project, ensuring that the Interactive To-Do List addresses the specific requirements of its target audience, ultimately enhancing user experience and productivity.

References

Lidwell, W., Holden, K., & Butler, J. (2010). *Universal principles of design, revised and updated: 125 ways to enhance usability, influence perception, increase appeal, make better design decisions, and teach through design*. Rockport Pub.

Nielsen, J. (2024, February 20). 10 Usability heuristics for user interface design. Nielsen Norman Group. https://www.nngroup.com/articles/ten-usability-heuristics/

Tidwell, J. (2005). *Designing interfaces: Patterns for effective interaction design*. " O'Reilly Media, Inc.".

Appendices
Transcript of interview 1

Question: How do you currently manage your daily tasks?

Student Response 1:
"I usually start my day by making a to-do list on a notepad or in my planner. I also use sticky notes for quick reminders and prioritize my tasks based on deadlines and importance."

Student Response 2:
"I manage my daily tasks by keeping a detailed planner where I write down everything I need to do. I also use a combination of digital tools to stay organized."

Student Response 3:
"I manage my daily tasks using a mix of digital apps and a physical bullet journal. The bullet journal helps me stay creative and engaged, while the apps help with reminders and organization."

Question: What tools or applications do you use for task management?

Student Response 1:
"I use a combination of Google Calendar for scheduling events and deadlines, and Todoist for managing my to-do lists. Sometimes I also use Trello for larger projects where I need to track multiple steps."

Student Response 2:
"I primarily use Microsoft Outlook for scheduling and email management. For tasks, I rely on Microsoft To Do and occasionally use Evernote for taking notes and keeping track of ideas."

Student Response 3:
"I use Notion for its versatility and customization options, and Google Keep for quick notes and reminders."

Question: What do you like and dislike about these tools?

Student Response 1:
"I like Google Calendar because it syncs across all my devices and sends me reminders. Todoist is great for organizing tasks with different priorities and due dates. However, I find Trello a bit overwhelming for personal use because it has so many features, and it can be time-consuming to set up each board."

Student Response 2:
"I like Microsoft To Do because it integrates well with Outlook and has a clean, easy-to-use interface. However, I wish it had better collaboration features for group projects. Evernote is great for organizing notes, but I find its search functionality could be improved."

Student Response 3:
"Notion is fantastic because it allows me to create custom templates for different types of tasks and projects. However, it can be a bit overwhelming to set up and requires a learning curve. Google Keep is very straightforward and easy to use, but it lacks some advanced features like task dependencies."

Question: Can you describe a typical day and how you use these tools?

Student Response 1:
"On a typical day, I start by checking my Google Calendar to see any scheduled classes or meetings. Then, I look at Todoist to review my tasks for the day and prioritize them. Throughout the day, I use Todoist to check off completed tasks and add any new ones that come up. If I have a project, I might use Trello to break down the project into smaller tasks and track my progress."

Student Response 2:
"A typical day starts with checking my Outlook calendar for any meetings or deadlines. I then open Microsoft To Do to review my task list and prioritize my work. Throughout the day, I use Evernote to jot down notes during classes or meetings. I end the day by reviewing my completed tasks and planning for the next day."

Student Response 3:
"In a typical day, I start by reviewing my bullet journal and updating it with any new tasks or events. I then check Notion for my project management and detailed task lists. Throughout the day, I use Google Keep to capture quick notes or ideas that come up, and at the end of the day, I transfer any important information from Keep to Notion or my journal."

Question: Are there any features you wish your current task management tool had?

Student Response 1:
"I wish Todoist had a built-in Pomodoro timer to help with time management. It would also be great if it had more detailed analytics on my productivity trends. For Google Calendar, a feature that automatically suggests optimal times for tasks based on my schedule would be really helpful."

Student Response 2:
"I wish Microsoft To Do had a more robust project management feature similar to Trello, where I could visualize tasks in different stages. Additionally, better integration between Evernote and other Microsoft Office apps would streamline my workflow."

Student Response 3:
"I wish Notion had better offline capabilities, as I often need to access my notes and tasks when I don't have internet. It would also be great if Google Keep had a way to categorize notes more effectively and support for task hierarchies."