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MyChart Online Portal

Problem Space

MyChart is a software portal service commonly used across the healthcare industry. Its function is for patients and medical professionals to access information like test results, medicines, and other aspects of a patient's medical history. The site also contains other features like scheduling appointments, renewing refills, and a messaging system that allows patients to communicate with doctors and medical specialists. All these features and information are on the main menu. This interface features four buttons to access multiple main features and a central menu button, which, when selected, reveals a long, cascading menu of a long list of different options and topics. The main issue is the sheer amount of information, and the need for more usability in the menu UI creates an environment that is difficult to navigate and unwieldy for the average user. Finding specific information is complex and requires specific knowledge about where things exist and in multiple locations.

User Types

This service has various types of users, including healthcare organizations, medical staff, and patients. When analyzing and problem-solving usability issues, for this analysis, the focus is on the **patients** and the thought process and what they experience when using this application. Patients are the most likely to need to access several of the software’s features and have the most difficulty from a lack of experience.

Need Finding Methodology

People took part in performing three different tasks to observe users' interactions with MyChart's navigation system. After completing a task, they could begin on the main menu screen or from their last location. Users could choose to achieve these objectives through any means as long as they used the navigation system that the application provided. Each task records how long it took to accomplish the objective and how many windows were necessary to find the correct information. Questions discussed during this process included topics like: "Why did they select a certain option?", "do you see relevant information after selecting a certain option?" and "Does this menu make sense?". After these tasks, participants did a post-task interview with questions like if the needed information was where they expected it to be. Afterward, their overall experience in different areas using these features is rated. This interview serves to gather general words and associated emotions from their experience. Feedback comments are in this section regarding their thoughts on the application and what they would change.

Tasks:

[#1]: As a patient, you are looking for **a visit summary** for details about **a past appointment**.

Notes: This is called a visit summary, doctor's notes, or something of that name.

[#2]: A user has a sick child and is looking for **information on available COVID testing sites nearby**.

[#3]: A patient is trying to determine their **vaccination history** and which **vaccines are due**.

Participants

Participant #1:

Demographics: Male, 60-65, medical consumer, parent, married

Information: Participant 1 is a heavy technology user in desktop/laptop and mobile formats. As a patient, they have had contact with the MyChart software and say they are a moderate user. Participant #1 has moderate familiarity with medical terminology. Participant #1 serves as the moderate participant for this study.

Participant #2:

Demographics: female, 30-35, medical consumer, no children, single

Information: Participant 2 reports being a moderate desktop/laptop and mobile technology user. As a patient, she reports being a novice platform user with limited experience. She reports to have a moderate level of knowledge of medical terminology. Participant #2 serves as the novice user for this study.

Participant #3:

Demographics: female, 25-30, medical consumer, no children, single

Information: Participant 3 in this study reports having moderate experience with desktop/laptop and mobile technology. As a patient, she reports to have substantial familiarity with medical terminology and to be familiar with several key features of the MyChart mobile application. Participant #3 serves as the expert-level user for this study.

Tasks

All three of these Participants went through the same three tasks. When doing these tasks, they had varying experiences with the MyChart platform. The time taken and number of pages showed some variance between users. None of the users used the MyChart app; the only variance was the browser and operating systems. Only one participant could not complete one of the tasks after about five minutes of searching. The other two participants did not have this issue. Often, when participants did find the information quickly, it was due to either prior effort searching or the link found on the main page.

Questioning during and after these activities revealed similar comments and complaints despite varying levels of commentary when prompted.

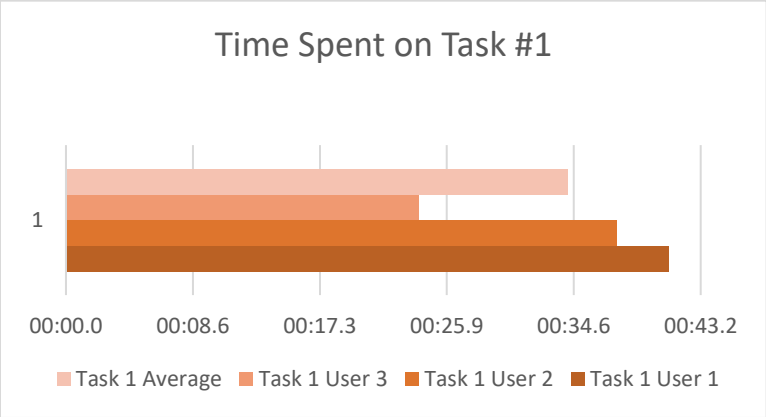
Participant 1 completed all three tasks, though some were found only after extended scrolling and use of the search function. They also complained about some information buried at the bottom of pages linked to other sites.

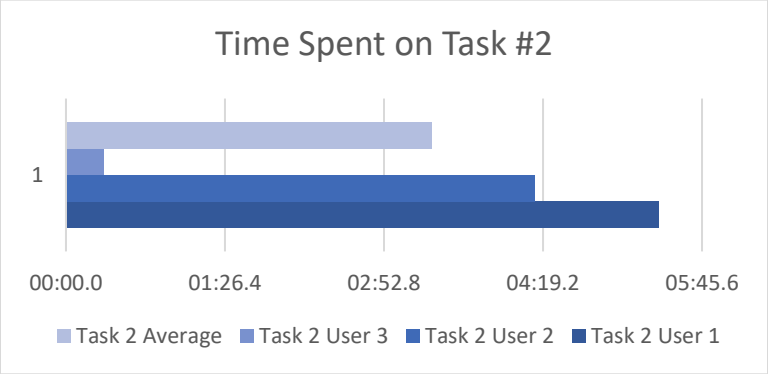
Participant 2 had few issues with doing the tasks despite having the least experience. They noted that the information was on the homepage, something the other two participants did not witness. This observation brings up specific questions that complicate what issues the platform has. However, they did notice some of the issues other participants found.

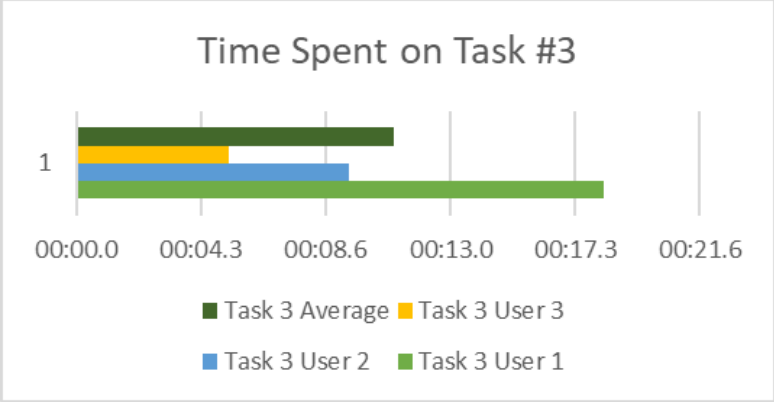
Participant 3 was able to do two out of the three of the tasks. They also communicated that some of this was due to prior knowledge gained looking for this information. The second task ended after five minutes of looking through various pages. Participant 2 complained about key features needing to be where expected and users having to rely on memory or luck to find information on

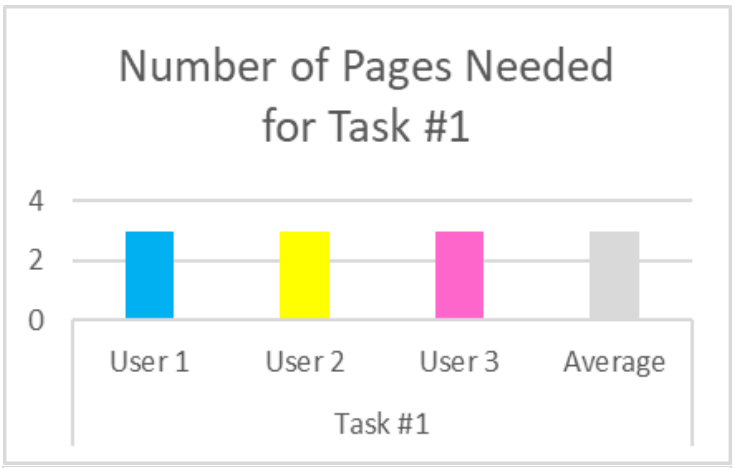
the platform. Below are charts on the amount of time taken and the number of pages required to find the requested information.

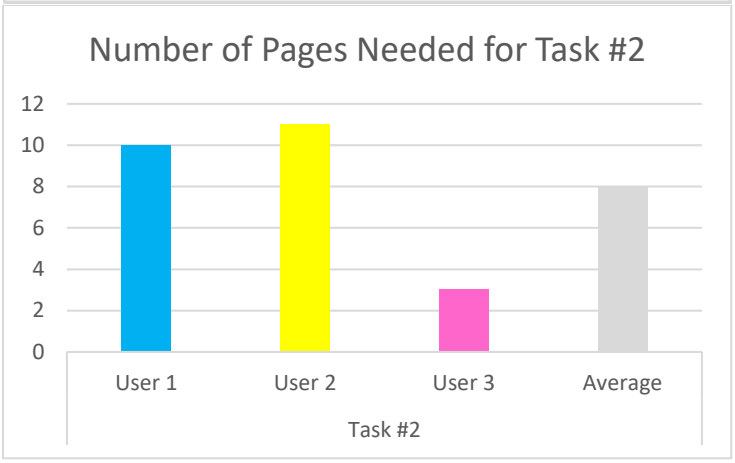
Results and Analysis:

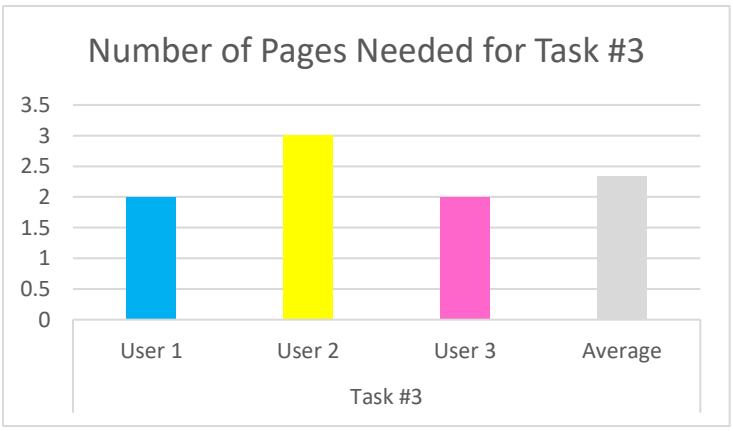







Number of Pages Needed for Task #1
4
2
0
User 1
User 2
User 3
Average
Task #1


Number of Pages Needed for Task #2
12
10
8
6
4
2
0
User 1
User 2
User 3
Average
Task #2


Number of Pages Needed for Task #3
3.5
3
2.5
2
1.5
1
0.5
0
User 1
User 2
User 3
Average
Task #3

Analysis:

The results confirm navigation issues with the browser form of the MyChart platform. Many of the issues reported had to do with a lot of information and options under one long menu option. The lack of intuitive UI was apparent, given how often users utilized memory to find the right option. Some information is non-apparent or only found through specific means, like a link under a long article. The site lacks the usability many sites of this age possess and instead chooses a layout that gives little guidance and is somewhat older in terms of menu design.

When observing, there is a noticeable difference in people finding information or even finding it based on slight differences in what they used to access the site. These differences could mean inconsistency with the site using different means; they could also exist with other untested methods like the MyChart mobile application. Looking further into this possible complication will require testing on other platforms.

Overall, the most significant issues were too many options, unintuitive navigation, variation in usability based on the operating system to access the site, and a need for more clarity. This platform's menu was cluttered, frustrating, and inefficient. For software meant to access medical information and resources, there should be a higher standard that ensures that patients, regardless of ability, can use the features on this site with as little frustration as possible.