Digital Family Histories 2 - Evaluate

Team

Name	Unity IDs
Urvi Luhana	uluhana
Abhilasha Saini	asaini4
Hasham Mukhtar	hmukhta
Brent Younce	bjyounce
Pranav Anumula	panumul
Tushar Nargunde	tvnargun

Participants / customers

- Number of Participants: 6
- Characteristics of actual participants
  - Participant 1 (Hasham)
    - Age: 21
    - Profession: College Student (Computer Science Major)
    - Gender: Male
    - Education Level: Currently pursuing a Bachelor's degree
    - Prior exposure to family health history (yes/no): No
  - Participant 2 (Abhilasha)

- - - Age: 24
    - Profession: Application Development Analyst
    - Gender: Male
    - Education Level: Bachelor's degree
    - Prior exposure to family health history (yes/no): No
  - Participant 3 (Brent)
    - Age: 22
    - Profession: College Student (Statistics)
    - Gender: Female
    - Education Level: Bachelor's
    - Prior exposure to family health history: No
  - Participant 4 (Urvi)
    - Age: 22
    - Profession: Graduate Student (Computer Science)
    - Gender: Female
    - Education Level: Pursuing a Master's degree
    - Prior exposure to family health history: No
  - Participant 5 (Tushar)
    - Age : 27
    - Profession : Graduate Student (Computer Science)
    - Gender : Male
    - Education level : Pursuing a Master's degree
    - Prior exposure to family health history : No
  - Participant 6 (Pranav)
    - Age : 23
    - Profession : Graduate Student (Electrical and Computer Engineering)
    - Gender : Male
    - Education level : Pursuing a Master's degree
    - Prior exposure to family health history : No
- List of characteristics wanted / not wanted
  - Want
    - Participants between the ages of 18 - 40
    - High school level education or higher
    - Basic proficiency in using websites and/or computer applications

- - ○ Don't Want
      - ■ Someone with prior knowledge of this project
  - How you recruited them
    - ○ Each member of the team found 1 person who had no prior knowledge of the project to participate in the evaluation
  - DO NOT record the names of these people (protect anonymity)

Lab

Describe the lab setup you created, and the tools you used. Include a picture. Were observing team members in one room?

Lab Setup

- Due to scheduling conflicts, each member of the team individually conducted a think aloud usability test with the participant they found
- Each member tried their best to take their participant and conduct the test in a library study room similar to the one shown below

  - ○

- We had the prototype setup on a laptop that the participant would use and the team member sitting beside them as they went through the prototype

- After everyone took their notes throughout their individual tests, we all met up to compare our findings and come up with any patterns and follow up suggestions

Tools Used

- Axure
  - For the prototype
- Google Docs

Interviews

- The script of your interviews
- The grid you produced

Prototype Link

https://invis.io/PQRL2SMSK7V

Script

"Welcome, my name is _____. Thank you for taking the time to test out our prototype. I am going to walk you through this session and give you tasks to perform with the prototype. If you have any questions during the session, please feel free to ask whenever you want. At the end of the session, I will ask you questions on the prototype and your experience.

I will give you a little background on the project. The end goal of this project is to create an application for Family Health History that people would want to use. Family health history is a record of information about a person and their close relatives. This information includes their bios and what diseases they have. This information is important because doctors can use this discover other potential health risks to the patient. Then preventative measures can be taken like dietary changes or taking certain tests need to be done to help the patient.

Our job in this project was to create a prototype of how the user experience would be for this sort of application. What you will be using is a wireframe which is a collection of images that use simple boxes and icons. They will be linked together to give you the feel a real application. These wireframes have no real functionality in them. You will be evaluating the ease of use of the wireframe.

Finally, we are not evaluating you, but the prototype. There are no wrong actions. If you find anything confusing or hard to use, please let me know during the test. Also, as you are going through the prototype, we would like you to say your thought process aloud. That is all useful information for us and can help us greatly improve the final application. Now, let's get started."

Tasks

While they are performing the tasks, take notes about each page on what they are doing. Either on paper or a separate google doc

There is a scale question we ask them from 1 - 5. Below is the what each number is
1 - very difficult
2 - difficult
3 - neither easy or difficult
4 - easy
5 - Very easy

When you ask the scale question after each task, you can ask as it's written or you can specifically say was each number represents or if they ask what each number represents, you have a key above

Start from the Login/Dashboard
If you start on login, ask them to login in to the system
1. Dashboard
    a. Say this: "This is the Dashboard. Do you have any thoughts or comments about this page when first looking at it?" (their first impressions) (take notes on what they say)
    b. "Now say you wanted to go to the Family Bio Page, how would you go about doing this?
        i. What they should do
            1. Use top nav bar or continue button
2. Family Bio Page
    a. "This is the Family Bio Page. Do you have any thoughts or comments about this page when first looking at it?" (their first impressions)

b. Say this: "For this page, there are already family bios added to the system. Some are filled out completely, some are not. Say you wanted to add and save the bio information of an extended family member to the application, how would you go about doing this?"

c. Ask them to add an extended family member and save the data

    i. What they should do: (do not tell them this, this is the steps you should see them do)

        1. Add new member to extended family with add button

        2. Expand newly added member

        3. Save the new member with input with save button

        4. Collapse the new member (this isn't necessary, but this is an action that is available in the prototype that the user can do)

d. When they are done with the task

    i. Say this: "Now on a scale of 1 - 5, with 1 being very difficult, 2 is difficult, 3 is neither difficult or easy, 4 is easy and 5 being very easy, how easy was it to complete this task?"

e. "Now how would you go to the family disease page?"

    i. They could use the nav bar or next button on this page

3. Family Disease Page

a. "This is the Family Disease Page. Do you have any thoughts or comments about his page when first looking at it?" (their first impressions)

b. Say this: "For this page, there is already a family member who was saved as having type 1 diabetes. Say you wanted to add a family member that has type 2 diabetes, how would you go about doing this?"

c. Ask them to add a family member to type 2 diabetes

    i. What they should do: (do not tell them this, this is the steps you should see them do)

        1. Open diabetes dropdown

        2. Open type 2 diabetes dropdown

        3. Add a new family member row with add button

        4. Save the new family member with input date with save button

        5. Collapse the disease menu (this isn't necessary, but this is an action that is available in the prototype that the user can do)

d. When they are done with the task

    i. Say this: "Now on a scale of 1 - 5, with 1 being very difficult, 2 is difficult, 3 is neither difficult or easy, 4 is easy and 5 being very easy, how easy was it to complete this task?"

e. "Now how would you go back to the dashboard?"
    i. They would use the nav button or use the back button to get there

Questions to ask them

These are questions to ask them after all the tasks have been completed.

General Questions for each page (Ask these if the questions aren't answered from observations or what they say aloud)
1. Was there any element that was confusing or hard to figure out while on this page? Why or why not?
    a. Anything more complex than it needed to be? (another variation of the question)
    b. Are there any interface elements that don't make sense? (another variation of above question)
2. Were the elements on this page easy to use? Was it difficult?
3. What did you think about the feel/flow of the page/actions?
4. What there anything in particular that you disliked about this page? Liked? Why?
5. Were there any elements that behaved differently than expected throughout the session? Behaved as you thought it would?
    a. Ask them what they expected certain action to do for any action they didn't immediately go to.
    b. What are their expectations for the behavior/content of any given element/screen? (another way to say the above question and we would get some of this information when we ask them what they think each page can do)
    c. Ask them if certain elements had functioned as expected? (can be asked while doing tasks. Also a similar questions to above two)
6. Are there places on this page where you would like additional information? Why or why not?
7. Are there any additional features they would like to see on this page? Why or why not?

Questions about the overall prototype
1. What adjectives would you use to describe the prototype overall?
2. Overall, was the prototype easy to navigate through? Why or why not?
3. On a scale of 1 - 5, (scale given below) how confident are your that you could accurately and thoroughly enter you entire family health information, both bios and diseases?
    a. 1 is not confident at all and 5 is very confident

b. 1 - not confident at all

c. 2 - somewhat confident

d. 3 - neutral (neither confident or not confident)

e. 4 - confident

f. 5 - very confident

Other Questions to ask them
1. Do you have any questions for me?
2. Do you have any other thoughts or comments?

Grid

	1	2	3	4	5	6
Dashboard	Positive - able to use navigation bar with no problem to go to other pages - liked idea of pedigree diagram and doctor contact information - liked the idea of the dashboard Negative - Thought to do list was clickable and would take you to a page to perform task - Continue button	Positive - Overall completion card was easy to understand. - Profile cards were understood by the user - TODO section was a plus as per the user. Negative - There was no redirection via todo list. - was not able to figure out what pedigree diagram	Positive -Easy to tell how much is done, and what the next steps are - Glad there's contact info listed Negative -Since it's the first use, not sure where the Continue button will take me	Positive - Very simple and to understand -Good as there are not too many elements -To Do is good, becomes self explanatory -The progress bar was easy to understand Negative -Not sure what the Overall completion indicates. Is it considering till the	Positive - was happy to start from homepage and not directly bombarded with data to fill - able to understand the clickable buttons very easily. Negative - The continue button was ambiguous regarding where it navigates to. - The progress bar of family section was interpreted as	Positive - Easy to figure out what the application was,by looking at the ample information in the dashboard. - Liked the idea of progress bar. Negative - No idea what pedigree diagram is. - felt it would've been easier if the sections were organized according to the priority(from left to right), since everyone starts looking from

	wasn't obvious of what it does (thought it was for wireframe purposes only) - not obvious what the family member progress bars were - thought some of the cards were too big and could be put in the corner of the screen and have other info showing - would have liked to see at least 1 card for each page on dashboard	was. Suggestion A sample pedigree diagram would have been useful.		next page? - Not sure was the pedigree diagram was. Suggestion -Add a sample pedigree diagram.	strength of relation (immediate / extended family) instead of profile completion. - TO DO list was not intuitive as suggestions or immediate actions that would disappear when completed. Suggestion - The pedigree diagram needed some explanation or example to not be seen as a task.	top-left. - Why are there buttons to navigate when we can do the same with top navigation bar. Suggestion - Family members section should be expandable on click instead of displaying it all the time.
Family Bio Page	Positive - able to add and save a new extended family member in the proper steps with no help - liked the subdivision of family members - said it was easy and simple to use Negative - expected there to be some sort of indication for required fields in the form	Positive - Easily able to add a family member Negative - Was not able to figure out the significance of tick marks(completion icon) initially. - Navigated via navigation bar, next/back buttons were not used. - Thought next button will redirect to next page under the same tab.	Positive -Easy to see all family members at once - Easy to tell that some information is hidden - Very straightforward to add new members (liked the split) Negative -Expected clicking anywhere on family member would expand it - Not sure, before opening one family member, what information will be	Positive -Easy to navigate for the addition of new extended family member. Negative -Wasn't sure about exclamation and tick marks right besides the member. -Wasn't sure which fields are required for adding an extended family member. For example, what will happen if she leaves the Born Twin question blank? Will	Positive - Intuitively performed all steps to add new member without hesitation. - Happy to keep track of all current members at a glance. - Liked the idea of entering basic information in this page. Was afraid that too many details will be asked while adding new members.	Positive - Easy to distinguish between the family members. - Liked the idea of showing status using a "tick" mark and "exclamatory". - Liked the design of the page due to minimal data. Negative - couldn't understand the difference between immediate and extended family

- didn't like that the You information was on this page as opposed to a separate page - Know Disease History Question was confusing of what it was used for - assumed, if answered yes, it would show a list to add diseases or take you to another page to do it - thought this page would show more information like test results, diseases, etc <u>Neutral</u> - when add button was clicked, he thought a form would appear for you to fill out and then save member - expected some sort of help or explanation of the questions the form asked (this would've have helped with the Know disease history question) - expected education to be a dropdown	<u>Suggestion</u> Buttons are not needed, if navigation bar is used.	there <u>Suggestion</u> -Mouse over the ! icons should show an explanation of what that means	it still show incomplete? <u>Suggestion</u> - Can show what ! is doing. -Can show which information is required and which is not in the form for adding a family member. Even an * will create that surity of required information. Or if all are to be filled up, let the user know.	<u>Negative</u> - At first instinct felt information was just for display and not editable - Found use of both symbols unhelpful because of too much information and of similar manner. (needed effort to see if its tick or exclamation) <u>Suggestion</u> - Use only exclamation mark for incomplete and nothing for complete profiles.	members. <u>Suggestion</u> - When add member is clicked it should directly open the form instead of just creating a family member.

	- radio button consistency (placement of yes/no not consistent with what we have) - still alive? Question should have more options if no is selected (maybe you don't know what age or how they died but the only thing you know is that they're dead) - suggested there could be some sort of indicator for family members you are required to fill out					
Family Disease Page	Positive - figured out what the user icons are for in the disease dropdowns - was able to add family member to type 2 diabetes in the proper steps - after realizing you could input disease, he said it was easy and simple to use Negative - at first glance, it	Positive - User was able to figure out the significance ticks(completion icon) regarding family members. - Task was completed without any guidance Negative - Actual purpose of search bar was not clear - Lot of unused	Positive -Can easily tell these are major categories of diseases - Obvious that scrolling down will show rest of categories - Subcategory flow was intuitive, very straightforward Negative N/A Suggestion -"I don't know" or	Positive -The user was able to complete the task given. Negative -Wasn't sure of what that user icons do. -Seeing it for the very first time, the user did not get an idea of what the person is exactly doing on this page. Suggestion	Positive - Easily able to understand icon mapped to profiles with diseases - Liked the consistency from Family Bios page - Able to add new member for type 2 diabetes within no time Negative - Found search bar	Positive - Liked the idea of search bar with filters. Negative - Felt this page is not so useful and a little confusing. Instead suggested to add diseases in family bios page while adding a member. Suggestion - Add more filters to search bar.

	wasn't obvious that this was a page where you could input diseases for family members - thought it was a page where you get information about the diseases - search bar was not obvious of what it could do - initially thought it was used to search for already assigned family diseases as opposed to all diseases - initially thought filter options were for family member diseases Neutral - would switch edit and delete icons - have some other way to save members because of multiple entries	space, can be used well. Suggestion: - Blank space can be used by clickable categorized disease cards instead of categorized disease list. When user will click on a card, it will list all the disease of that particular category.	Other option for diseases or disease subcategories (e.g. I know he had diabetes, but not what type)	-The icons could have been made understood in a better way. -Can include a tour page saying what the page is doing.	very confusing. Not clear if search is on the basis of family member or organ or a disease name - Expected a better filter operation based on Gender / Organ / Common diseases Suggestion - Not to contain list or disease or organ category that has no member or have complete list of all disease to keep it consistent.	- Auto suggestions for search bar(like google search).
Navigation	Positive - liked placement, size and description of nav bar - liked how it was	Positive - User was easily able to navigate through nav bar. Negative	Positive -Nav bar was simple to use, used most often - Glad the nav bar was consistent on all	Positive -Was easy to locate and on a good position. -It was easy to use		Positive - Liked the idea of Nav bar.

	consistent across all the pages - was able to easily use nav bar <u>Negative</u> - never used next and back buttons when navigating prototyping - thought next/back buttons would navigate within a certain page instead of going between pages	- next/back buttons were not used. - next/button are ambiguous,thought next button will redirect to next page under the same tab.	pages <u>Negative</u> -Didn't use next and back buttons, but probably would if they came back to the tool several times	<u>Negative</u> -The Next and back buttons were used just once and noticed on a very later stage.		<u>Suggestion</u> - Deleting the navigation buttons might make some space to display extra data.
Overall UI/UX	<u>Positive</u> - simple and easy to use <u>Negative</u> - too simple in terms of information given. Should find some way to better explain what each page does (family disease page in particular) - arrows for dropdown confused him at first. Assumed down arrow means the menu is already open <u>Neutral</u> - said UI (dropdown menus) is what he	<u>Negative</u> - Slightly ambiguous	<u>Positive</u> - Simple, familiar layout overall -Once you figure out how one page works, the rest are very obvious (consistent) -Dashboard would be very helpful when coming back to the tool later <u>Negative</u> -Not sure what information I have to put in without some kind of explanation first <u>Suggestion</u> -Very quick	<u>Positive</u> -It was easy to use <u>Negative</u> -Very simple expecting it to be more interactive.	<u>Positive</u> - Was happy with the flow of the pages and found it simple to enter information in. - Appreciated consistent UI for internal pages - Found all sections of family page accessible from anywhere - Happy to find form crisp and not asking excessive information. <u>Negative</u>	<u>Positive</u> - Most of the pages were pretty interactive and easy to use. - Liked the spacing and alignment of the data. <u>Negative</u> - Family diseases page could've been excluded by implementing that feature in family bios page. This way there are less number of pages to navigate.

	would expect for mobile as opposed to a computer website		explanation of what each page is for would clear away any confusion (e.g. this is where you list the diseases anyone in your family has had)		- Pedigree diagram, TO DO list and search - filter bar aspects of forms needed additional information.

Results

- List of patterns you found
- DO NOT reveal detailed data/grid outside of class
- Follow up you recommend

Patterns

- Dashboard
  - In general, the status dashboard was viewed as highly valuable, but users expected more interactivity than our prototype had configured
  - Several users wished the To-Do list and Family members boxes were clickable (links to that action)
  - Not immediately obvious what family member progress bar meant, but once explained, most participants viewed this as valuable
  - Participants gave recommendations on alternate layouts, but they were not consistent
  - Continue button was not obvious of what it would do
- Family Bios page
  - In general, participants appreciated having all of the information visible at once
  - Participants also appreciated the structure (You, Immediate Family, Extended Family) as being very clear, both in terms of finding and entering data

- ○ The format of the prototype (that is, limited functionality in terms of animations, etc.) lead to some confusion with regard to the incomplete icons, etc. that would not be present in an implemented system
  - ○ Participants appreciated how easy the page was to use in general, but were not sure what information was required in general
- ● Disease Entry page
  - ○ Without any explanation, participants were sometimes confused with regards to the purpose of this page (disease reference vs input of family disease history)
  - ○ After explanation, participants appreciated the consistency of this page with the other pages,
  - ○ Easily able to navigate the hierarchy and add family members to diseases
  - ○ Often, participants expressed appreciation for the family member icons
  - ○ Participants were unsure of what capabilities the search feature had (for example, could you search by organs, family members, etc.)
- ● General
  - ○ In general, participants mainly used the navigation bar as compared to the next and back buttons
  - ○ In general, participants were somewhat confused initially on what each page was for and what information was required
  - ○ After a very brief explanation of the purpose of the pages, participants were typically able to complete their tasks very quickly, and they appreciated the consistency of the pages with each other and the visibility of all of the information at once on most pages
  - ○ Navigation between pages was simple and easy for users
  - ○ Actually entering data and navigating the nested menus was easy to do for the users

Follow Ups
- ● Most importantly, in order to reduce confusion as to the basic purpose of each page, there should be a short summary upfront (and potentially accessible via a help link on each page) describing, in a few sentences, what information should be entered in each page, and what information is needed in general
- ● As few users ever used the continue/next and back buttons, those should be either:
  - ○ Removed entirely
  - ○ Modified to show what pages they would go to
  - ○ Tested again after adding the upfront summary information, which would reduce confusion as to what the main pages were
- ● Add more interactivity to the dashboard page. For example, clicking a To-Do item should link a user to the exact step, and any non-obvious items should have clearer headers or tooltips/alt text

- For the search bar on the disease page,
  - Add descriptive placeholder text or descriptive information under a help link that describes what can be searched would be useful. For example, "Search disease names, symptoms, organs, or family member names"
- For the continue button:
  - Remove entirely or
  - Give a more descriptive text for the button (that is continues previous progress)