Usability Study Report

The Big Family

Hypermedia Applications 2018 Project

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Abstract:

This document is a report for the usability of "The Big Family" site hosted on https://polimi-hyp-2018-team-10483610.herokuapp.com developed for Hypermedia Application course project. For the evaluation is performed the user testing method.

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Contents

Chapter 1

Design and execution of the study

1.A Evaluation method adopted

For the evaluation of the usability of "The Big Family" site is used the user testing method. With this approach usability properties are retrieved analyzing the interaction between some representatives of real users and the system. The test is performed as the developers of the site want to gather data in order to improve their product.

1.B Task scenarios defined for the test

During the execution of the test five tasks to complete are requested to the users:

- Task 1: You stumbled upon the website of "The Big Family", understand what is the scope of this association.

- Task 2: You are helping a friend looking for services for disabled people near Certaldo. Identify the ones offered by the association.

- Task 3: You want to write an email to have some more information about the association. Find the address.

- Task 4: You need to contact someone working in the Pet Therapy service. Find a telephone number to call.

- Task 5: You want to visit the association's site nearest to your house. Find where it is.

1.C   Partecipants for the test

For this test the partecipants are 5 users and 1 moderators.
The users are recruited in order to best match the possible target audience for the system, and this was done considering that the site is about an association that holds some children care center on the territory.
The user profiles found in the audience of the association are:

- Young adult

- Adult parent of a child

The user goal is to:

- Find information about the association, since one of their relatives is a children with disability and the association could be useful for him/her

The moderator is one the developers of the site, alternately, depending on the disponibility of them.

1.D   Usability variables to be measured

For each user and task, the moderators gather quantitative and qualitative indicators.
Quantitative indicators:

- Efficiency (time used for every task)

- Effectiveness (task completion (with or without assistance))

- Number of errors

- Task success rate

Qualitative data:

- What is liked/disliked

- Disorientation (information not found)

- Frustration

1.E   How the test was performed

For the execution of the test a typical context of use of the site is simulated (i.e on the dining room table or in the living room) and every user is requested to work with a laptop to perform the tasks predefined by the moderator. If the user does not know English, the moderators will help him with the translation.

Before starting the test, its steps and its purpose are explained, the user is set at his ease and is told that he can leave whenever he wants. The sheet with the tasks is given to the user that can start to read and to ask what he doesn't understand of it or whatever comes to his mind. At this point the actual test can start. Since every profile of the audience can be in a situation where he needs to perform any possible action on the site (maybe for his children or one of his relatives), all predefined tasks are requested to every user. As long as the user performs the various tasks the moderator is present to gather the data needed and to observe any obstacle for the users to reach their goals.

After the test a simple questionnaire is delivered to the user to understand his opinion about the usability of the system.

Chapter 2

Results

2.A Test Rules

For execution of the test some rules about the task performance are used. Starting from the scoring method considered for the task success, the one used is the following:

- Complete success (without assistance) = 1

- Partial success, or if assistance given = 0.5

- Gives up or wrong answer = 0

For the determination of unsuccessful tasks, a task is considered unsuccessful if one of the following condition is matched:

- The user give up on trying to complete the task

- Three wrong paths, or three attempts from the start, but the user is free to persevere, even though the task is considered unsuccessful

- The cut-off time (threshold) is elapsed (for this test 4 minutes are chosen as cut-off time)

At last, action is considered an error if:

- The user enter incorrect data into a form field

- The user makes the wrong choice in a menu or drop-down list

- The user takes an incorrect sequence of actions

- The user fails to take a key action

2.B   Documentation of the test

All the data retrieved by the moderators and compiled by the users during the tests are presented below.

As reminder these ones are the tasks asked to the users:

- Task 1: You stumbled upon the website of "The Big Family", understand what is the scope of this association.

- Task 2: You are helping a friend looking for services for disabled people near Certaldo. Identify the ones offered by the association.

- Task 3: You want to write an email to have some more information about the association. Find the address.

- Task 4: You need to contact someone working in the Pet Therapy service. Find a telephone number to call.

- Task 5: You want to visit the association's site nearest to your house. Find where it is.

2.B.1   Task record sheet

In the next page the data retrived by moderators during the test, collected in the task record sheet. For every user and every task, the moderators observed:

- Task time

- Task completion

- Number of errors

- Possible observation on the the behaviour of the user or comments

	Partecipants →	Young Adult (F) 20Y	Adult with children (F) 48Y	Adult with children (M) 47Y	Young Adult (M) 24Y	Young Adult (M) 23Y
Task ↓		1	2	3	4	5
1	Task Time: Min & Sec	0 min 38 sec	0 min 20 sec	2 min 21 sec	0 min 20 sec	0 min 15 sec
	Task completed: Yes, No or Assist	Yes	Yes	No	Yes	Yes
	Number of errors	1	0	3	0	0
	Comments on observated behaviour	Clicked on "Services" instead of "Who We Are"		Didn't found link to "Who We Are" in the homepage		
2	Task Time: Min & Sec	0 min 18 sec	0 min 22 sec	0 min 12 sec	0 min 30 sec	0 min 22 sec
	Task completed: Yes, No or Assist	Yes	Yes	Yes	Yes	Yes
	Number of errors	0	0	0	0	0
	Comments on observated behaviour					
3	Task Time: Min & Sec	0 min 9 sec	0 min 48 sec	0 min 16 sec	0 min 30 sec	0 min 34 sec
	Task completed: Yes, No or Assist	Yes	Yes	Yes	Yes	Yes
	Number of errors	0	2	0	1	1
	Comments on observated behaviour		Wants "Contacts" more highlighted			Wants "Contacts" more highlighted
4	Task Time: Min & Sec	0 min 15 sec	0 min 18 sec	0 min 11 sec	0 min 24 sec	0 min 19 sec
	Task completed: Yes, No or Assist	Yes	Yes	Yes	Yes	Yes
	Number of errors	0	0	0	0	0
	Comments on observated behaviour					Wants Links more highlighted
5	Task Time: Min & Sec	0 min 21 sec	2 min 11 sec	0 min 13 sec	0 min 15 sec	1 min 02 sec
	Task completed: Yes, No or Assist	Yes	No	Yes	Yes	Yes
	Number of errors	0	4	0	0	1
	Comments on observated behaviour		Wants "Locations" more highlighted			Found the solution using the map, instead of reading locations

2.B.2   Post test questionnaires

These questionnaires are provided to the users after the execution of the test, in order to retrieve the overall feelings perceived by them regarding the tasks (like difficulty, disorientation...). The questionnaires are filled in by each one of the five people involved in the testing and are listed in the same order as in the task record sheet. The questionnaire used is the DEEP (Design oriented evaluation of perceived web usability), that is composed of questions about content, structure and navigation of the site.

DEEP: DEsign-oriented Evaluation of Perceived Web Usability

Name: __Young Adult (F) 20Y__   Date: __16/05/18_____

Perceived Content

The wording of the text was clear

[ ]   [ ]   [ ]   [ ]   [●]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

The content (including text, pictures, audios, and videos etc.) was easy to understand

[ ]   [ ]   [ ]   [ ]   [●]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

The text was useful

[ ]   [ ]   [ ]   [●]   [ ]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

The text was relevant

[ ]   [ ]   [ ]   [●]   [ ]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

Perceived Structure and Information Architecture

I could quickly get to know the structure of the website by skimming its homepage

[ ]   [ ]   [ ]   [ ]   [●]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

The organization of the website was clear

[ ]   [ ]   [ ]   [ ]   [●]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

Under each section of the website, the web pages were well organized

[ ]   [ ]   [ ]   [ ]   [●]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

Perceived Navigation

It was easy to find the information I needed on the website

[ ]   [ ]   [ ]   [ ]   [●]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

This website helped me find what I was looking for

[ ]   [ ]   [ ]   [●]   [ ]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

I got what I expected when I clicked on things on this website

[ ]   [ ]   [ ]   [●]   [ ]   [ ]
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Not Applicable

DEEP: DEsign-oriented Evaluation of Perceived Web Usability

Name: Adult with children (F) 48Y   Date: 16/05/2018

Perceived Content

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Name: _Adult with children (M) 47Y_   Date: _16/05/2018_

Perceived Content

The wording of the text was clear

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DEEP: DEsign-oriented Evaluation of Perceived Web Usability

Name: Young adult (M) 24Y   Date: 10/05/2018

Perceived Content

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2.C   Aggregate data

Once all the testing is finished and the information is retrieved by the moderators, all the data need to be put together in order to recapture useful information for the improvement of the site.

2.C.1 Quantitative data

Average time

- Task 1: You stumbled upon the website of "The Big Family", understand what is the scope of this association.
  Average time: **0 min 47 sec**

- Task 2: You are helping a friend looking for services for disabled people near Certaldo. Identify the ones offered by the association.
  Average time: **0 min 21 sec**

- Task 3: You want to write an email to have some more information about the association. Find the address.
  Average time: **0 min 27 sec**

- Task 4: You need to contact someone working in the Pet Therapy service. Find a telephone number to call.
  Average time: **0 min 17 sec**

- Task 5: You want to visit the association's site nearest to your house. Find where it is.
  Average time: **0 min 48 sec**

- Average time considering all tasks: **0 min 32 sec**

Total number of error

- Task 1: **4**

- Task 2: **0**

- Task 3: **3**

- Task 4: **0**

- Task 5: **5**

- Total: **12**

Task success rate

- Task 1: (4*1/5*100) = **80%**

- Task 2: (5*1/5*100) = **100%**

- Task 3: $(5*1/5*100) = \mathbf{100\%}$

- Task 4: $(5*1/5*100) = \mathbf{100\%}$

- Task 5: $(4*1/5*100) = \mathbf{80\%}$

- General task success rate: $(23*1/25*100) = \mathbf{92\%}$

2.C.2   Qualitative data

Regarding qualitative data the information is retrieved from comments and observed behaviour of the user and using the answers to the questionnaires.

Data retrieved from observation

From the observation made by the moderators, tasks 2 and 4 didn't gave particular problems to the users, except for an advice to make Links motr highlighted, but it's an advice that could be extended to all site because the whole site is built with the same style.
Task 1, 3 and 5 gave more problems to the users:

- Task 1: Gave problems in understanding what "Who We Are" stands for, and it was confused with "Services".

- Task 3: Gave problems in finding "Contact Us" link to the page requested by the task, and users wanted to have it more visible in the home page.

- Task 5: Gave some problems in finding "Locations" and in one case the user chose contacts page in order to know the locations, before using the correct link.

Data retrieved from the questionnaires

Having all questionnaires filled up is possible to compute a questionnaire that contains the average answer given by the users (if the average answer is between two boxes, the pessimistic one is chosen).

DEEP: DEsign-oriented Evaluation of Perceived Web Usability

Average answers

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The average satisfaction of the users towards the site is good. The only thing to note is the ease with which the users find the information needed, that doesn't have a good evaluation.

2.C.3 Old results

The tasks' results show that everyone was able to complete all the tasks in a reasonable time and with zero errors. The only noteworthy data are

three:

- On the first task one person took a long time (2 minutes and 21 seconds), made three errors and noted that a link to the "Who We Are" page could be added to the content of the homepage. On average this task took more time than the other ones to everybody and another person did one error.

- On the third task one person made two errors and it took 48 seconds to complete it (not incredibly higher than average time). Also was noted that "Contact Us" landmark could be more noticeable.

- On the fifth task one person made four errors and it took 2 minutes and 11 seconds to complete (pretty higher than average). It was also suggested that the "Locations" landmark could be more noticeable.

The data collected by survey confirms the task's result, with a good overall impression of the structure and information architecture, content and navigation. Only one person replied neutral at the statement "It was easy to find the information I needed".

Chapter 3

Discussion of results

In the end we can say that it could be useful to change the page title "Who We Are" in something more like "What Is The Association" or "History And Values" to highlight the fact that the page is telling about the association, his history and his scope. Also we coul find a better position for the "Contact Us" landmark.