Human-Computer Interaction

CAA3:

Generation: Low-fidelity prototyping

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Introduction

This new challenge is designed in order to make a low fidelity prototype for our future interface. The work is divided into three main points. First, we will carry out two user journeys for the requirements that we have selected in the previous challenge, being a technique that will help us analyse the negative and positive points of a competing company to improve the interaction of the person in our future website. Subsequently, the prototype will be presented, a task that is complemented with a video uploaded to the blog and a brief explanation of each page. And finally, I will explain how I have applied the fundamental concepts of human-computer interaction in my interface.

1.User Journey

To carry out this activity, I have selected the Google application and I have looked at the experiences and comments collected in the User tests of the previous challenge, especially based on the user who had the most difficulties accessing the page's features.

Task: Reserve a seat

Actions	Introduce destiny and dates	Select flights	Check the options	Reserve flight	Do the payment	Reservations is confirmed
Touch points	Customer can search in the own web	A lot of filters	In the web	Web send client to another page for choosing features.	In the external page you must pay.	A confirmation message appear in the screen.
Pain points	nothing	nothing	Maybe the flights do not have seats	Client must go to another page	The page works bad during the process	
Feelings	😊	😊	:/	☹	☹	😊
What is customer feeling?	She feels fine and sure.	She navi-gates easily with the menu	She looks options but doesn´t know if the flights have selectable seats	She doesn´t like she must go to another website and she looks very annoyed	She feels worry cause any confirma-tion message has arrived.	She feels happy since the process has finished
Opportunities			Show options with selectable dates	Reserve in the own page	Send advice to the client	

Paint points and opportunities

We note that the beginning of the interaction with the application is satisfactory, the search is carried out without any problem. However, within the pain points we can find that the search does not show the flights with selectable seats, so you have to enter several results. And, on the other hand, to book the flight you need to go to the airline's page and carry out the reservation and purchase process there, so you feel very insecure about these events.

The solutions that I propose to these pain points appear in the opportunities tab, and can be summarized as follows: on the search page the results will have a text with the selectable seats available and within the page you can book, the page will be displayed to customize the flight, and select the seat, and the page will also have its own payment gateway that will send a message to our user once the payment is made.

Task: Compare airlines

Actions	Introduce destiny and dates	Watch a the results	Move to filers	Select airlines	Compare airlines	Select Flight
Touch points	Customer can search in the own web	A lot of options appear.	A good variety of filters.	A column of airlines display.	Flights appear in the screen.	Web send client to another page
Pain points	nothing	Nothing	nothing	nothing	Not appear all the airlines selected	She doesn´t like she must go to another web.
Feelings						
What is customer feeling?	She feels fine and sure.	She feels good with the amount of results found.	She likes options in the filters.	She feels comfortable	She feels annoyed cause there are not flights of some selected airlines	She does not like she must finish the process in another web
Opportunities					In the column of airlines only must appear airlines with flights	Complete the process in the same web.

Paint points and opportunities

This task shares the principle of interaction with the previous one, so the beginning of the user journey is very comfortable and smooth. The main pain points are based on the fact that the filter menu has airlines that then do not have a flight to the destination, which is why they get annoyed. And then, you have the same problem to finish the ticket purchase process.

To solve the problem, I propose that only the airlines that have flights according to the user's criteria appear.

2.Prototyping

Here is the prototype:

https://cloud.justinmind.com/usernote/prototype/53a95443b44c4d7ce6b10bb33a68466f5412282ac4b79f0278a922b571a5d4c9

Description

Home page

It consists of a header with the logo and user customization options. In the middle there is a search engine that remains visible throughout the flight search and customization process. Within this search engine we can add the departure and arrival dates, the destinations, the number of passengers and the type of flight.
Below is a carousel of images where the popular destinations of the moment appear, and if we click on one of the images it will take us to the search page to see the different options. And further down there is another section that recommends specific flights at good prices to our user according to the information collected thanks to cookies, and if we click there, it will take us directly to the flight customization page.

Search page

The screen still has the search engine at the top, with most of the entries that the user had entered.
On the left there is a sidebar where most of the modifiable filters appear (price, stopovers, nº passengers) with a scroll to move through the section and the rest of the page is covered by search results, where each result have the flight details as the dates, if it has selectable seats, the stopover the price and a select button what is clickable, and that section also has vertical scroll. If we click on select flight it will take us to the following screen

Customize page

On this page the search engine is at the top again. And in the rest of the page there are two blocks again. The one on the left shows the summary of the flight selected by the user, and on the right we find a customization panel, where an airplane box with selectable seats appears, where the user can click between the available options (marked by color).
Then there will be a form to send the personal data as the name, mail and phone, and once filled it takes you to another tab to make the purchase.

Payment page

The search engine is no longer on this page, only the header appears and in the middle of the page there is a box that contains a form where you can enter the payment information.

3.Fundamental concepts of Human-computer interaction

Affordance

To define this concept we can use the definition given by the psychologist Gibson, being "the ability of an object to suggest its own use". This concept derived from the design of digital products translates into making the content easy and fast to navigate.
An example of affordance used in my interface is the search button that appears in the search engine. It consists of an explicit affordance since it transmits to the user that he is going to carry out an action when he is going to click that button.

Metaphor

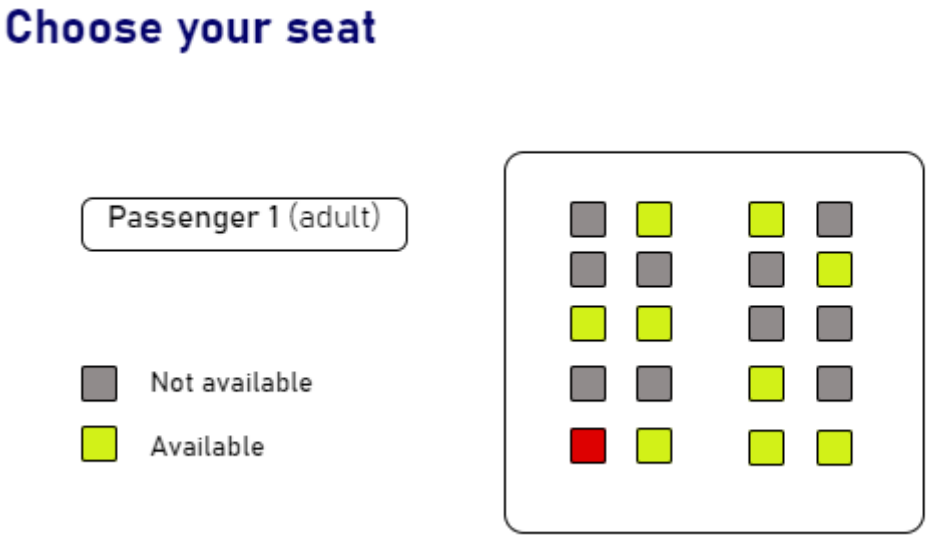
The metaphor consists of the use of an analogy between an object and an action and consists of that object figuratively denoting a literal concept. There are different kinds of uses for the metaphor, but I've mainly used it to suggest a function.
As an example, I have placed several metaphors in the header, such as the language symbol to change the language, a person with arms up symbol for the help section and a user icon in the login option.

Visibility

This concept defines the ability of an element to be perceived by others.
An example of visibility can be found in the search engine, which is placed in a central and upper part of the page, since it is an important element for the process. Another example would be in the cards that appear on the landing page, which are delimited in sections by shading and titles that differentiate the functions of each other.

Feedback

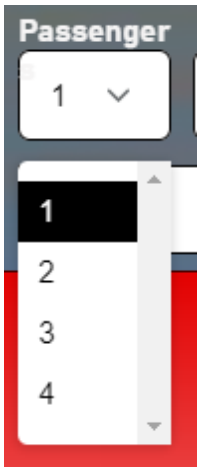
This concept is defined as the visibility of the effect of our actions. Basically, it is a response that the system gives us to an action that we have done.
In my prototype there is a clear example of this concept in the customization page, since when you hit a seat in the plane box it changes color.



Constraint

The constraint principle consists of limiting the number of options available to the user. when you are doing a task. This is applied so that the user does not make mistakes and thus improve the navigability and usability of the site.

An example of a constraint that I have applied would be the limitation of the number of passengers in the box that is inside the search engine. Being only possible to choose from 1 to 4 individuals.



Mental model

A mental model is a representation that our mind creates to explain the events that occur in our daily life. It is a way of synthesizing elements and giving us an explanation of their nature and concepts.

There are several examples of a mental model in the prototype, for example the search engine is inside a gray box, thus applying the common region law, by which we perceive objects within the same area as if they were the same group. Another example would be the images on the landing pages, since they comply with the principle of similarity by sharing size and shape, and the principle of continuity, since they are on the same line, so these images are perceived as a group.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