



# POLITECNICO MILANO 1863

M.Sc. Computer Science and Engineering  
Hypermedia Applications Project

## Usability Report

Website under evaluation:

**YES MILANO**

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## Abstract

This usability report aims to analyze the YesMilano website with both Inspection-Based and User-Testing-Based techniques to address the possible strengths and weaknesses of the application and provide some suggestions to resolve the latter.

In the Inspection section, we used Nielsen and a subset of MiLE heuristics to perform the evaluation assigning for each heuristic a score between 1 and 5. The scores help to have a quantitative overview of the UX.

In the User testing section, we asked a group of users with different profiles to complete some tasks on the website to have true real-world feedback and then we asked them to answer some final questions about their experience to retrieve useful data.

In the conclusion, we summarized all the aspects that have been taken into consideration and we gave some advice to solve some critical issues.

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# 1 Inspection

In this section, we analyze the YesMilano website through an inspection-based technique which, thanks to the use of some heuristics, aims to find usability problems that worsen the overall user experience.

## 1.1 Methodology

To perform this type of analysis we used Nielsen and MiLE heuristics which give a general but still precise overview of the usability of the website. To obtain a uniform examination we categorized each Nielsen's Heuristic following the three categories given for MiLE: navigation, content, presentation.

We created an inspection table that each of us filled autonomously and then we discussed and agreed on the final scores and notes.

We now define the meaning of some terms used throughout the document:

- Item: as an item, we consider each element, resource, link, page that can be ordered in a list of semantically related objects.
- Group: as a group, we consider each cluster, set, list of items.
- Topic: as a topic, we consider each section, element, resource of the website that by itself or with its components can describe a common subject.

### 1.1.1 Nielsen's Heuristics

We used the 10 Nielsen's Heuristics to analyze the UX. More specifically:

- **Visibility of system status:** the system should always keep users informed about what is going on, through appropriate feedback within a reasonable time.
- **Match between system and the real world:** the system should speak the user's language, with words, phrases, and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.
- **User control and freedom:** users often choose system functions by mistake and will need a marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.
- **Consistency and standards:** users should not have to wonder whether different words, situations, or actions mean the same thing. Follow "platform" conventions.
- **Error prevention:** even better than good error messages is a careful design that prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.
- **Recognition rather than recall:** minimize the user's memory load by making visible objects, actions, and options. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

- **Flexibility and efficiency of use:** accelerators may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.
- **Aesthetic and minimalist design:** dialogues should not contain information that is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.
- **Help users recognize, diagnose, and recover from errors:** error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.
- **Help and documentation:** even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

### 1.1.2 MiLE Heuristics

We used a subset of all the MiLE heuristics, more specifically:

#### Navigation

- **Interaction consistency:** do pages of the same type have the same links and interaction capability?
- **Group navigation:** is it easy to navigate from and among groups of “items”?
- **Structural Navigation:** is it easy to navigate among the “components” (parts) of a topic?
- **Semantic Navigation:** is it easy to navigate from one topic to a related one (in both directions)?
- **Landmarks:** are “landmarks” useful to reach the key parts of the website?

#### Content

- **Information overload:** is the information in a page too much/too little?

#### Presentation

- **Text layout:** is the text readable? Is font size appropriate?
- **Interaction placeholders-semiotics:** are textual or visual labels of interactive elements “expressive”? i.e., do they reflect the meaning of the interaction and its effects? Are they consistent?
- **Interaction placeholders-consistency:** are textual or visual labels of interactive elements consistent in terms of wording, icon, position, etc.?
- **Spatial allocation:** is the on-screen allocation of contents and visuals appropriate for their relevance? Are “semantically related” elements close and “semantically distant” elements far away?

- **Consistency of Page Structure:** do pages of the same type have the same layout? (Same visual properties of each component and similar organization and layout of the various elements?)

### 1.1.3 Scoring Metric

To evaluate those heuristics on the website we defined a scoring metric based on a value between 1 and 5:

- **N/A:** the heuristic is not applicable on the website.
- **1:** the heuristic is not satisfied due to severe violation.
- **2:** the heuristic is not satisfied due to some issues.
- **3:** the heuristic is partially satisfied but there's still a lot of room for improvement.
- **4:** the heuristic is satisfied with minor issues.
- **5:** the heuristic is fully satisfied.

## 1.2 Results

### 1.2.1 Navigation

#### N.1 - MiLE – Interaction consistency

Overall all the various pages on the website have the same interaction capability in terms of links and connections so this heuristic can be considered as completely satisfied.

Score: 5

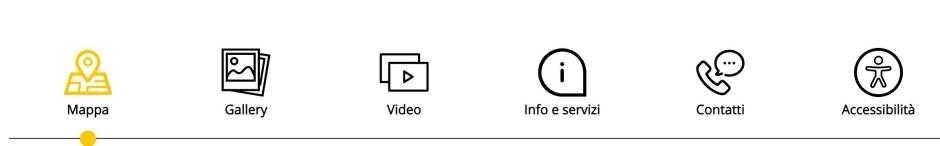


Figure 1: Example of interaction capability

#### N.2 - MiLE – Group Navigation

Here the major issue is the lack of buttons that allow the user to go back and forth between members of a list, this, added to the fact that going back to the list of items is not always straightforward, can become a real problem during the navigation. Nonetheless, the navigation from the list to its member is quite good since there is not only text but also images that help the navigation.

Score: 2



(a) List of attractions

(b) No buttons to navigate through attractions

Figure 2: Group navigation issues

### N.3 - MiLE – Structural Navigation

Pages are well-formatted and from a topic, it is easy to navigate between its components since there are clear images and icons to help the user, all the elements are well-positioned on the page. There are no navigation buttons and it is not clear what is clickable.

Score: 4

### N.4 - MiLE – Semantic Navigation

In some part of the website, there is some sort of semantic correlated links, in fact on an attraction page there are links to nearby interesting elements but there is not any link to useful information such as itineraries with that attraction or a link to the neighbourhood of that attraction. Moreover, there are cases where related pages are not linked, such as itineraries and where to move in Milan or restaurant/food-based itineraries and "YesMilano Restaurant".

Score: 3

### Nelle vicinanze



Figure 3: Example of nearby elements

### N.5 - MiLE – Landmarks

There are landmarks on the website, but they are not easily visible since most of them are at the end of the page and sometimes they are not even present, like in the restaurant or hotel parts, also, the landmark of the home page does not always bring back to the home page.

Score: 3



Figure 4: Landmarks at the bottom of the page

#### N.6 - Nielsen – Visibility of system status

During the navigation on the website the bread crumbs are likely wrong and bring you to the wrong page and not where you came from, it also always consider Home as a starting point.

Score: 1



Figure 5: Example of wrong bread crumb

#### N.7 - Nielsen – User control and freedom

A severe problem is that when you choose a restaurant you have to go back to choose another one and can't change on the same page. Besides, when you are searching for a hotel you can't change the selected dates if not starting from the beginning.

Score: 3

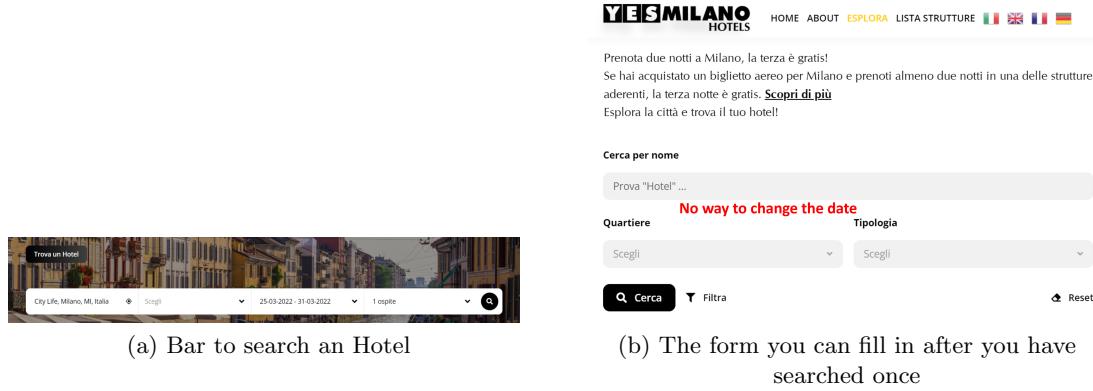


Figure 6: Hotel search

## N.8 - Nielsen – Error Prevention

It is not clear what is clickable and what's not, some images don't change when the mouse is over and that could cause some errors by the user. Besides, when you register on the website a password is not requested but then if you want to log in you have to put in a password that you do not have.

Score: 2

Figure 7: Misleading clickable images interaction

- (a) The image does not change at all even if it is clickable      (b) The image change when hover with mouse but it is not clickable



## N.9 - Nielsen – Flexibility and efficiency of use

The menu allows users to move smoothly between the different sections of the website. Experienced users can improve efficiency by learning how to use it. However, landmarks could be improved and the search bar is too slow to be used.

Score: 3

Figure 8: Navigation techniques

(a) Landmarks at the bottom of the page



(b) Search bar



(c) Main menu



### 1.2.2 Content

#### C.1 - MiLE - Information overload

Usually, the information is adequately distributed, without adding too much cognitive overload. However, there are cases such as in figure 9 where the list of items is shown in a confusing way with too many elements.

Score: 4



Figure 9: Crowded list of universities, information overload

#### C.2 - Nielsen - Match between system and real world

The website uses real-world terms familiar to the user and recognizable icons, as shown in figure 10. The heuristic can be considered fully satisfied.

Score: 5

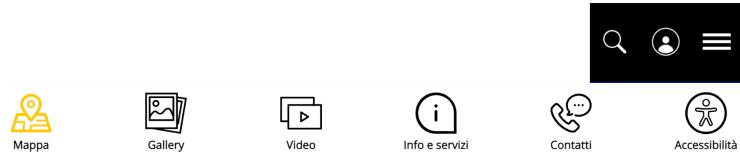


Figure 10: Example of recognizable icons in use in the website

### C.3 - Nielsen - Consistency and standards

The hotel and restaurant sections of the website have a different layout from the rest of the website, as shown in figure 11. Another inconsistency is represented by the fact that three different accounts can be created respectively in the hotel section, in the restaurant one and the rest of the website. Also in some pages like "Life Sciences", with no apparent reason, the button colour is red while in similar pages like "Agrifood Tech" and in the rest of the website the button colour is yellow, as shown in figure 12.

Score: 3

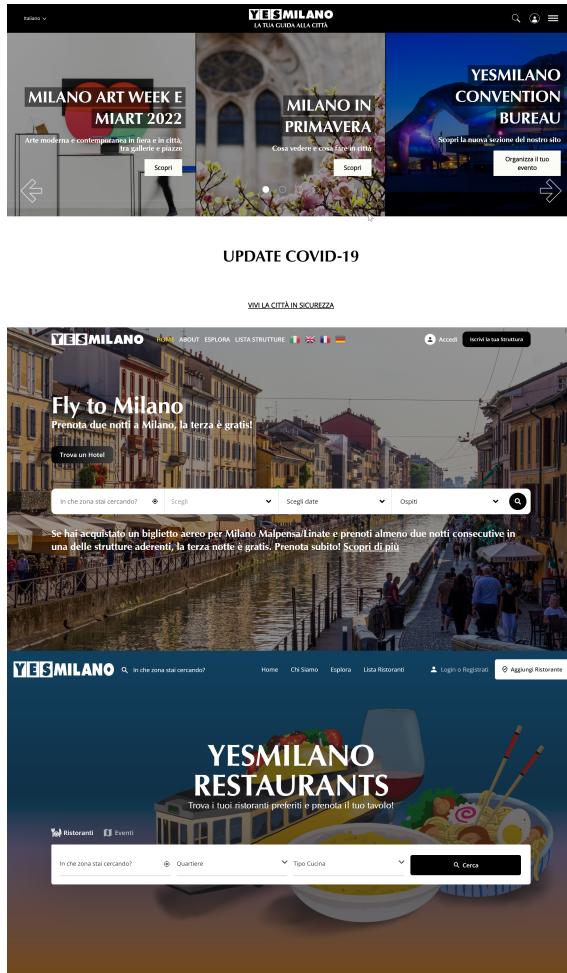


Figure 11: Layout inconsistencies in the different sections

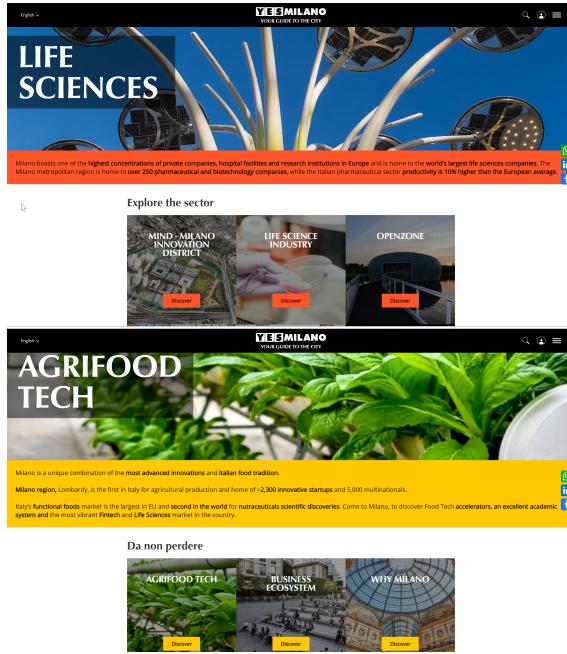


Figure 12: Inconsistencies between two conceptually similar pages

#### C.4 - Nielsen - Recognition rather than recall

As shown in figure 10, the website provides a text description for many icons, which saves the user from having to remember the function of each button. It also shows for every attraction and itinerary an image, as shown in figure 13, which helps the user identify the points of interest if they don't remember the names. However, as shown in figure 14, after inserting a date in the hotel section, on the next page there is no visual feedback on the inserted date and the user has to remember it.

Score: 4

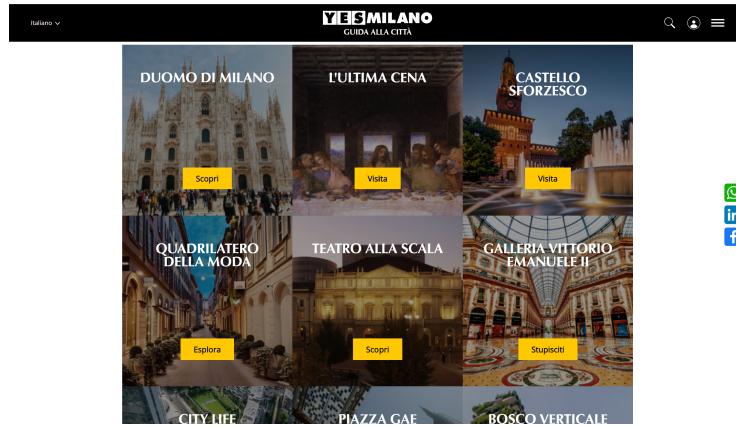


Figure 13: Example of images provided in the "Attractions" section

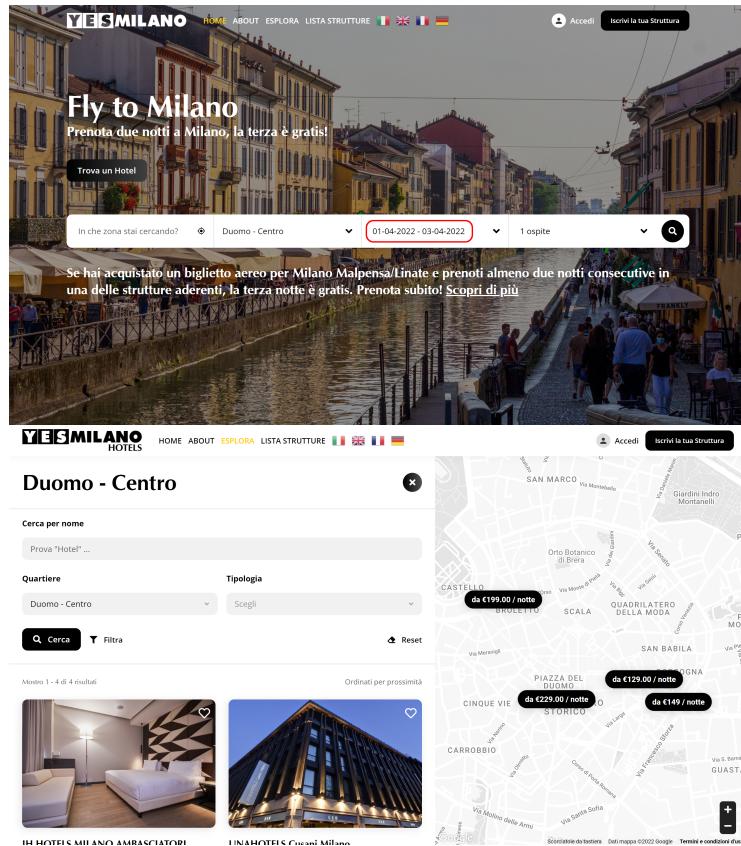


Figure 14: After performing a hotel search there is no reference to the inserted dates

### C.5 - Nielsen - Help users recognize, diagnose and recover from errors

The website does not provide any suggestion when a typo occurs while searching for a term. It also doesn't show any error message if an invalid username or password is inserted, simply refreshing the login page.

Score: 1

### C.6 - Nielsen - Help and documentation

No documentation is provided.

Score: N/A

#### 1.2.3 Presentation

##### P.1 - MiLE - Text layout

The font size is always adequate and the text readable, often written in a pleasant black font on a white or uniform background.

Score: 5

##### P.2 - MiLE - Interaction placeholders-semiotics

There are many clickable pictures as well as icons that make interactive elements "expressive". However, sometimes it is difficult to distinguish between clickable and not clickable

elements. (see Nielsen heuristic - Error Prevention in Navigation context).

Furthermore, the always-present social media icons do not work as expected redirecting to the page instead they are share buttons.



Figure 15: Misleading Facebook interaction

In the Italian version, we can see another problem for the hotel section: the label for the choice of the Neighborhood is ambiguous as you can see in figure 16.

Score: 4

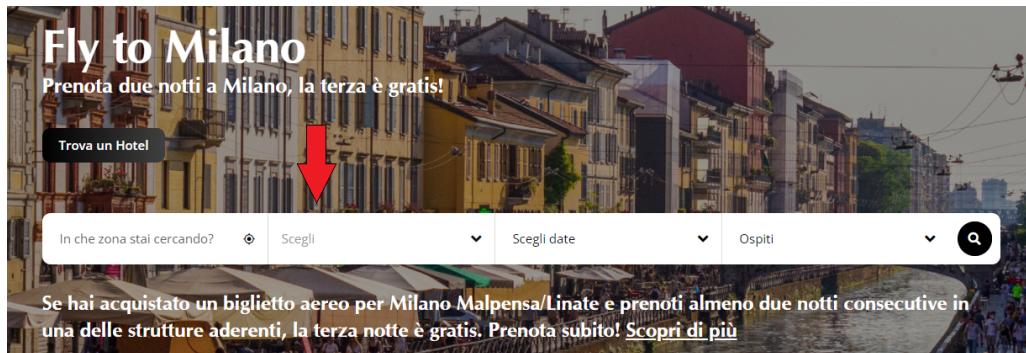


Figure 16: Ambiguous Neighborhood choice

### P.3 - MiLE - Interaction placeholders-consistency

All the icons use the same visual language and labels for the icons are always provided. Regarding the clickable images, they change in form and labelling without following a precise pattern. For example, in figure 17 we can see three different interactive elements. Furthermore, on some pages, buttons in the same position with the same colour sometimes navigate on the YesMilano website while sometimes changing the website. (see figure 28).



Figure 17: Three different interactive elements in the same section

Score: 4

#### P.4 - P.5 - MiLE - Spatial allocation

We decided to split this heuristic into two different parts:

- P.4 - Relevance allocation:

Usually, the important contents are on the top-left of the page.  
Too much relevance is given to the share buttons of the social networks that are always fixed on the right part of the page, even if usually a normal user will not use them.

Score: 4

The screenshot shows a section titled 'The main anti Covid 19 measures in Milano, in Lombardy and in Italy' with a list of measures:

- From Feb. 11th to March 31st 2022 mandatory use of face masks only indoors. The use of face masks outdoors is no longer mandatory, except when in crowded places or in case of gatherings.
- Super Green Pass mandatory to access museums and exhibitions.
- Mandatory use of FFP2 face masks on all public transport, when attending events open to the public both indoors and outdoors in theaters, concert halls, cinemas, entertainment and live music venues (and similar) and for sports events and competitions both indoors or outdoors. In all these cases it is forbidden to eat and drink indoors.
- Super Green Pass mandatory on all local and general means of transportation (tram, bus, metro and trains).
- Until the end of the state of emergency, the use of the Super Green Pass is set to be extended to all catering services even when at the counter and outdoor.
- Until Feb. 10th 2022, parties and concerts involving outdoor gatherings are forbidden; dance halls, discotheques and the like are closed;
- From February 11th dance halls, discotheques and similars will open, with a 50% capacity indoors, 75% outdoors. Super Green Pass (Reinforced Green Pass for vaccinated and recovered) and face masks will be required.

On the right side of the page, there are social media share icons for WhatsApp, LinkedIn, and Facebook, each enclosed in a red circle. A red arrow points upwards from the bottom of the page towards these buttons.

Figure 18: Always present share buttons

- P.5 - Semantic proximity:

Semantically related elements are close together and semantically distant elements are separated.

Score: 5

## P.6 - MiLE - Consistency of Page Structure

Usually, the pages of the same type share the same layout. A major problem is identified in the hotel section, where the position of the elements is not consistent throughout different hotel pages. (see figure 19).

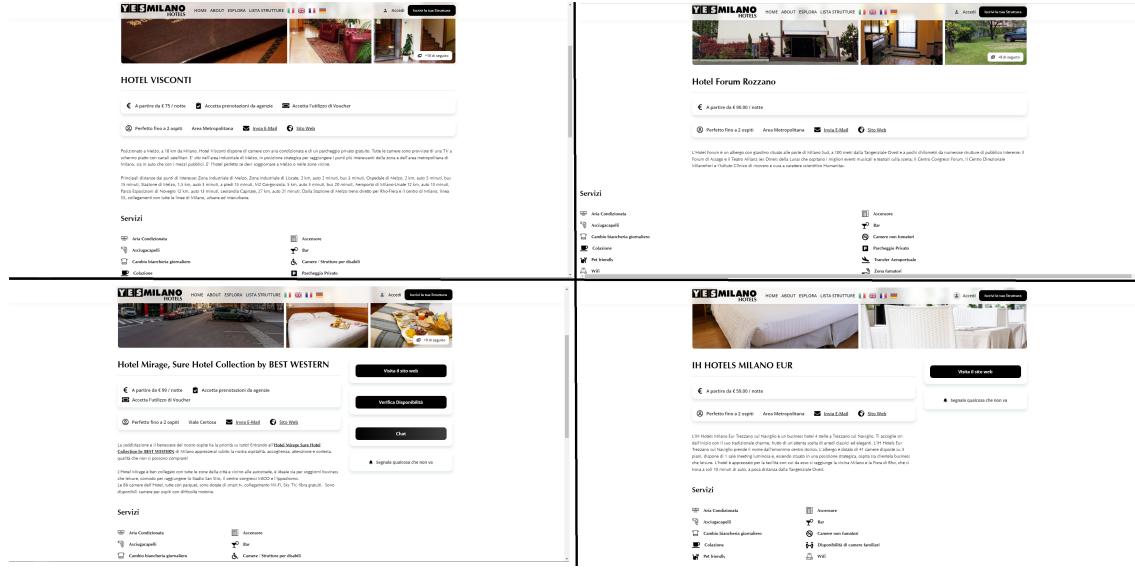


Figure 19: Four hotel pages have different positions

Score: 4

## P.7 - Nielsen - Aesthetic and minimalist design

The design of the website is overall minimalist with great pictures on each page. Interfaces are cleared of unnecessary elements and content that do not support the page goals and tasks.

Score: 5

### 1.3 Summary

In the following section, we report the aggregated data divided by category.

#### 1.3.1 Navigation

Heuristic Type	Heuristic	Score
MiLE	N.1 - Interaction consistency	5
MiLE	N.2 - Group Navigation	2
MiLE	N.3 - Structural Navigation	4
MiLE	N.4 - Semantic Navigation	3
MiLE	N.5 – Landmarks	3
Nielsen	N.6 – Visibility of system status	1
Nielsen	N.7 - User control and freedom	3
Nielsen	N.8 - Error Prevention	2
Nielsen	N.9 – Flexibility and efficiency of use	3
<b>Navigation average</b>		2.88

#### 1.3.2 Content

Heuristic Type	Heuristic	Score
MiLE	C.1 - Information overload	4
Nielsen	C.2 - Match between system and real world	5
Nielsen	C.3 - Consistency and standards	3
Nielsen	C.4 - Recognition rather than recall	4
Nielsen	C.5 - Help users recognize, diagnose and recover from errors	1
Nielsen	C.6 - Help and documentation	N/A
<b>Content average</b>		3.4

#### 1.3.3 Presentation

Heuristic Type	Heuristic	Score
MiLE	P.1 - Text layout	5
MiLE	P.2 - Interaction placeholders-semiotics	4
MiLE	P.3 - Interaction placeholders-consistency	4
MiLE	P.4 - Relevant allocation	4
Nielsen	P.5 - Semantic proximity	5
Nielsen	P.6 - Consistency of Page Structure	4
Nielsen	P.7 - Aesthetic and minimalist design	5
<b>Presentation average</b>		4.43

We can see how, by the inspection analysis, the navigation category is the one with the most issues, with an average score of 2.88, and the one that needs to be improved the most to increase the overall user experience.

## 2 User Testing

In this section, we analyze the YesMilano website through a user-testing-based technique which, by asking users to perform some tasks and give feedback, can find critical issues on the usability of the website.

### 2.1 Method

#### 2.1.1 User Profile

To perform this analysis, we defined two user profiles based on age, the first one with people between 20-35 years and the second one with people between 50-70 years to have a broader view of the UX.

#### 2.1.2 Testing Procedure

Before starting the test we decided to spend some time letting users understand that they are our partners in evaluating the application. We assured them that it is the website under evaluation and not themselves, and they have to act exactly how they would do if they actually needed a guide through Milan. We asked them to think aloud during all the tests, making clear that it is really important to us to see their expectations for the product, as well as their intentions, explicit reactions and problem-solving strategies. The user testing was performed via Google Forms, always with the supervision of the evaluators.

#### 2.1.3 Tasks

In the first part of the test, we asked the users to perform seven tasks and at the end of each task, they were free to insert any comment or suggestion in a dedicated section of the form. The Tasks were given in a random order to users to have at the end of the evaluation unbiased results since, after spending some time navigating on the website, users are more experienced and can complete subsequent tasks more easily.

1. You are a tourist that came from abroad and you will stay in Milan for just 3 days, find a pre-planned itinerary for your stay.
2. During your stay in Milan, you want to taste the famous Italian pizza, find the opening hours of a pizzeria in the Navigli's neighbourhood.
3. Unfortunately, you broke your leg, and you must go to Teatro La Scala to watch an opera in a wheelchair, find the slope of the entrance ramp of the theatre.
4. Since we are living during a pandemic find what are the medical materials needed to visit a museum.
5. You are visiting Milan and did not rent a car so find the price of metro tickets.
6. It is your last day in Milan and you can only visit one last neighbourhood, so you want to have a preview of CityLife and Chinatown before making a choice, to do so find some photos of both the neighbourhoods.
7. You are planning your stay in Milan and you are searching for a single room in a hotel for 2 nights from 15th to 17th April. Find a Hotel in the Duomo neighbourhood that offers an airport transfer service.

#### 2.1.4 Final Survey

After the execution of the task, we asked our users to answer 6 general questions about their impression of the website. The evaluation is made on a scale from 1 to 5.

1. How easy was it to navigate inside a page on the website?
2. How easy was it to carry out each task (in general)?
3. Did you find the website design consistent?
4. Did you find the images well-positioned and proportioned?
5. Did you find the navigation between each section smooth and free of any misunderstanding?
6. Did you find the elements on the website coherent with the function you thought they had?

## 2.2 Results

### 2.2.1 Data Analysis

#### Effectiveness

Thanks to user testing we can have an idea of the effectiveness of the website, we gathered the success of the user in completing the tasks, S if the user fully reached the final goal, P if the user reached the goal only partially or some help was needed, F if the user did not complete the task.

User	T1	T2	T3	T4	T5	T6	T7
1	P	F	S	S	S	S	S
2	S	S	S	S	S	S	P
3	P	S	S	P	S	S	S
4	S	S	S	S	S	S	S
5	F	S	F	S	S	S	S
6	P	S	S	P	P	P	P
7	S	S	P	P	P	P	S
8	S	S	S	P	P	P	S
9	P	S	S	S	S	S	S
10	S	P	P	S	P	P	S
11	S	S	P	S	S	S	S
12	S	S	F	S	S	S	S
13	S	S	S	S	S	F	S
14	S	P	P	S	F	S	S
15	S	S	F	S	S	S	S
16	S	S	S	S	S	S	S
17	S	F	S	S	S	P	P
18	S	S	S	S	S	S	F
19	S	P	F	P	S	P	P
20	S	S	P	S	S	S	F
Score	85%	82.5%	67.5%	87.5%	85%	80%	80%



Figure 20: Successes of users per task

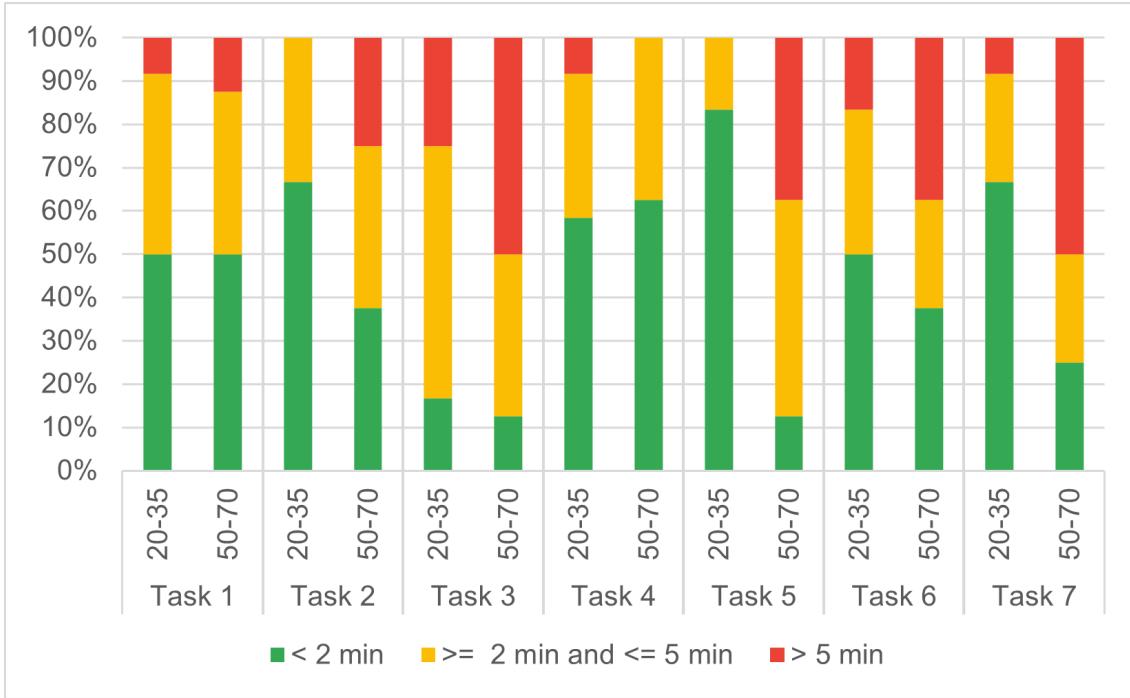
At first, we noticed that the success rate is higher in the group of users with an age between 20-35 with an average success rate of 85% instead of the other, older, group with an average success rate of 74%, this can be related to the fact that the first group have more experience in browsing and so was able to use those past experiences to resolve tasks.

By analysing the data it's clear that the most failed task is the third one, the others are pretty close to each other. The most common issues found in each task will be discussed later but by this metric, we can identify how impactful are those problems in the usability of the website.

### Intuitiveness

Observing all the users doing testing we have had the opportunity to understand if the website is actually intuitive and easy to use to all the profiles we analyzed. We stored the amount of time needed for each task by each user and categorized it in three meaningful time interval.

Figure 21: Chart of user's time divided by task and user profile



By analysing these graphs we can see how, as expected, task 3 is the one that took the most time to finish. We can also see how tasks 6 and 7 took noticeably more time to conclude than the others, even though the success rate were almost the same, this can suggest that those parts of the website, where the majority of the task take place, are not intuitive to use.

## Survey analysis

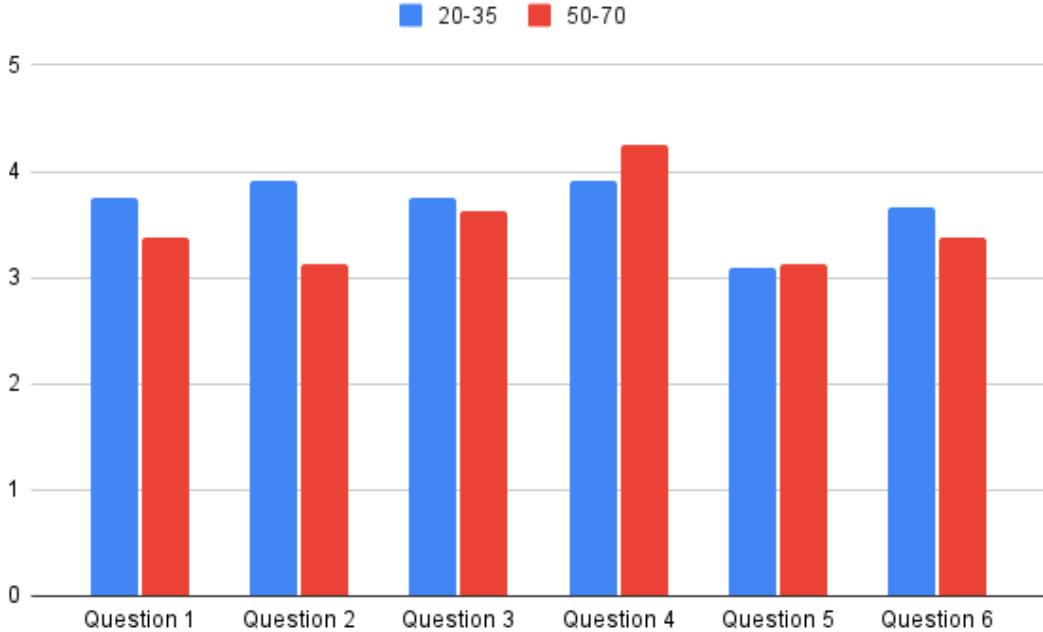


Figure 22: Average score per age for the final survey

By analysing the final survey results, shown in figure 22, we can see how the question regarding the navigation scored the worst and instead the one regarding the position of images scored the best result, this once again show how the website lack of intuitiveness but has some strengths that, if used in the right way can greatly improve the usability.

### 2.2.2 Most Common Issues

#### Task 1

- Users don't find on the homepage, links to the main topics of the website, and that makes them think that those topics do not exist, or are brought to navigate in pages that are related to the searched topic but not the principal ones.

#### Task 2

- While users are filling the form to search the restaurant, they do not see a clear difference between the "In che zona stai cercando?" and the "Quartiere" cells which confuses them and if a user fills both of those cells the results are wrong.
- To type in both "Quartiere" and "Tipo Cucina" cells, users hardly find the designated box.
- Users find that, the non-alphabetical ordering of the Neighborhood's list, makes the search slower.
- Users think that the label "YesMilano Restaurant" does not highlight the useful information which is restaurant.

### **Task 3**

- In the main page of the "Teatro alla Scala" there is a section about accessibility but it says to visit the dedicated page but users do not find the link distinguishable from the rest of the text.
- Some users search the information in "info e servizi" since the accessibility icon is not expressive enough to give the meaning of that section.

### **Task 4**

- Users say that, on the main page of each museum there is not any information about the Covid normative or even a link to the Covid section of the website which could have been useful.
- Users found "Update Covid-19" a not ideal name for a section that describes the current Covid Normative.
- Users think that, in the Covid section there is too much information on a single page and links that helps to jump in the page, cut the title after the jump making it unclear if it is the right paragraph.

### **Task 5**

- In "Itinerari" users do not like that there is not a link to "Arrivare e muoversi in città" which could have been useful.
- In "Muoversi in città" section of the "Arrivare e muoversi in città" page users say that there is not a clear link hierarchy.

### **Task 6**

- Users seem confused by the fact that clicking on the gallery icon on the pages does not change.
- Users find the division of neighbourhoods in geographic areas not useful for visitors that do not know the city.
- Users find that the initial list with the most important neighbourhood is inconspicuous.

### **Task 7**

- Users do not find intuitive to insert both check-in and check-out dates in the same place since there is no indication to do so.
- Users think that, the label "scegli" on the box to choose the neighbourhood does not give any indication on what to do.
- Users think that, the label "YesMilano Hotel" does not highlight the useful information which is hotel.
- While users are filling in the form to search the hotel, they do not see a clear difference between the "In che zona stai cercando?" and the "Scegli" cells which confuses them

and if a user fill both of those cells the results are wrong.

- Users find that, the button "Trova un hotel" has an ambiguous meaning since it seems that its function is to confirm the search but instead it brings to the next page without saving their preferences.
- Users would have liked to have the filter option at the first search.

### 3 Conclusions

The user testing confirmed the issues found during the inspection part. Most of the problems identified in the first part of the analysis have been noticed by the inspectors during user testing or directly complained by the users. Nevertheless, users found problems that the inspection part alone did not highlight.

In this last section, we summarize the most relevant problems that emerged during both inspection and user testing. Those problems make the website harder to use for users and make the overall experience worst, for each of them we suggest some improvements that can be made to solve those issues. The major issues regard the navigation, and they make users confuse or lost, on the other hand, YesMilano has some strengths, most of them regarding the presentation part, a modern design and the use of images make the website pretty to look at.

Problems and Solutions		
Problem	Severity	Solutions
The <b>search bar</b> is most of the time useless since it's too slow to give an answer and if the user makes even a simple typo it gives no result nor a suggestion for the typo	High	Use a better search algorithm or use a faster server could improve the efficacy. Implement word suggestions to avoid typos.
<b>Discrepancy</b> among the <b>design</b> of YesMilano, YesMilano Restaurants and YesMilano Hotels, the user has to learn new layouts	High	Uniform the design, layout and visual language of the three websites. An option is to use a layout more similar to YesMilano for YesMilano Restaurants and YesMilano Hotels.
The <b>navigation menu</b> is hidden and every time the user wants to navigate through it two clicks are required to change page.	High	Change the upper part of the page losing in minimalism but gaining in usability, insert a fixed menu with the main categories that display a drop-down menu when go hover it.
The <b>bread crumbs</b> on the website are mostly wrong, which means that they are missing or they do not bring back where the user came from, even if it follows a simple and coherent path.	Medium	Use dynamic bread crumbs or re-engineering those existent by making an analysis of the website structure and the link between pages.
The <b>navigation</b> among elements of a <b>group</b> is not implemented, no button allows to skip back and forth between elements	Medium	Insert buttons at the top of each page of the element of the group that allows the navigation, an arrow key or a link with the name of the next element is sufficient to improve the usability.
The <b>account section</b> of the website is badly managed, the purpose of the accounts is not clearly stated and there are three different accounts for YesMilano, YesMilano Restaurants and YesMilano Hotels	Low	Implement a single account for the whole website, explicitly state the benefit of signing up
The <b>semantic navigation</b> is sometimes limited and in some cases, there isn't a direct link to useful semantically related pages	Low	Improve the cohesiveness of the website and the links based on the semantics, e.g from an itinerary a link to how to use transport means or from restaurant/food-based itineraries to the "YesMilano Restaurant" section
In various parts of the website some <b>elements</b> that seem <b>clickable</b> are instead just label or normal images and the other way around, images that change opacity when the pointer is over seems clickable but instead they are not.	Low	Choose an appropriate design for clickable and not clickable elements and stick with that decision to solve the issue.

## A Inspection (Annex)

### A.1 Individual Inspection Sheets

Evaluator name: Andrea Cerasani

Navigation		
Heuristic	Score	Comment
N1	4	Layout very coherent, some attractions have photos and videos while others don't
N2	4	Homepage index is hidden behind a hamburger button, from one attraction it is possible to jump to nearby attractions, from one itinerary to related itineraries
N3	5	Each component of a topic is easily identifiable by icon and text
N4	2	Links are rarely bidirectional, often it is necessary to use the back button or to go back to the main pages (attractions, itinerary etc.). There are cases where related pages are not linked, such as itineraries and where to move in Milan or restaurant and food-based itineraries and "YesMilano Restaurant".
N5	3	At the bottom of many pages, there are similar links to the menu that make possible to reach the main sections of the website. This does not apply to the restaurant and hotel sections where landmarks are fewer and less useful
N6	1	Bread crumbs are not accurate, home button is in bread crumbs
N7	2	In the hotel section it is not possible to change the dates without going back to the homepage, it is possible to change the area both in restaurant and hotel sections
N8	3	As a plus the dates before the start date are greyed out when selecting the end date in the hotel section. As a con when searching something a suggestion is not provided if there is a typo
N9	3	Same as N5

Content		
Heuristic	Score	Comment
C1	4	The quantity of information is adequate, without cognitive overload, the pages are cleanly organized
C2	4	The terms used together with the icons are easily recognizable
C3	3	The restaurant and hotels section are inconsistent with the rest of the website
C4	4	A text description is provided for many icons, however after inserting a date in the hotel section, in the next page there is no visual feedback on the inserted date and the user has to remember it
C5	1	No suggestion is provided when a typo occurs while searching and no feedback is provided if an invalid username or password is written
C6	N/A	No documentation is provided

Presentation		
Heuristic	Score	Comment
P1	5	Font size is adequate and text is readable
P2	4	The majority of interactive elements are intuitive to use, maybe the menu button could confuse inexperienced users
P3	5	All the icons use the same visual language and labels for the icons are always provided
P4	4	The homepage images on top could be a bit smaller
P5	4	Usually this rule is respected
P6	5	There is coherence with the pages of the same type, e.g. each attraction has the same layout as the others
P7	5	The website adopts a modern, flat and minimalist style using basic geometric forms

Evaluator name: Davide Canali

Navigation		
Heuristic	Score	Comment
N1	5	In general all the pages in the website follow the same philosophy, with the same structure and interactions.
N2	4	Generally there's always a list of links to navigate between but when those links are missing is not trivial to navigate among elements.
N3	3	The menu is well divided in topics and from the main page of all topics it is possible to go in every subtopic, but from those pages going back is not always easy since the bread crumbs are often wrong.
N4	3	Difficult to do if not from the menu, but sometimes at the end of the page there is a "related to" section with some other pages.
N5	2	Landmarks are almost absent if not for the home button, and sometimes it does not work properly since, for example, on the restaurant page the button, even if it's the same, does not bring back to the home page.
N6	2	Even after a few actions bread crumbs do not show the right path and they bring back to the wrong pages.
N7	4	Almost every time the website allows to go back between each interaction somehow, although sometimes it is not trivial for example, after having selected a restaurant to choose another one the user has to undo via the browser back button.
N8	4	Beyond bread crumbs the other links are clear and intuitive.
N9	2	See N5.

Content		
Heuristic	Score	Comment
C1	3	In some areas the text doesn't provide all the basic information and it is needed further research to find them.
C2	5	Images are clear and they well describe the subject.
C3	5	The website follow a clear design philosophy.
C4	5	Images and well defined links.
C5	3	Really few hints on why something went wrong, even worst since there is no clear way for the user to see the path that led to that error.
C6	N/A	No documentation provided.

Presentation		
Heuristic	Score	Comment
P1	5	Color, font and size are fine.
P2	5	Images well describe what they are supposed to show.
P3	5	Text, labels and icon follow a clear structure.
P4	4	Images sometime takes too much space.
P5	5	Given the provided information the pages are well structured.
P6	5	As said the website follow a clear philosophy in terms of formatting, so related pages have the same lay out
P7	5	Gives modern design vibes.

Evaluator name: Alessandro Barbiero

Navigation		
Heuristic	Score	Comment
N1	5	Pages of the same type have the same links and interaction capability.
N2	1	The website is full of pages like "10 museums you must visit", "10 major churches", but you can't navigate the single pages of these groups of items going next/previous. You always have to go back with the browser.
N3	4	The different parts of a topic are clearly separated and sometimes there is a list of hyperlinks on top of the page redirecting to the different sections scrolling the page.
N4	3	Sometimes you can pass from a topic to a related one utilizing the bottom part of the page (on the same theme, what's nearby, Upcoming events...) but it is not always a bidirectional relation.
N5	4	Landmarks are present on top and bottom of the pages and is possible to reach key parts of the website, but changing the section the main landmark can change meaning redirecting to an intermediate page instead of the homepage. New different landmarks are added in the subsections.
N6	2	Bread crumbs are usually inconsistent with the path followed by the user or with the bread crumbs of other pages, It is easy to lose orientation.
N7	3	It is difficult to come back to the previous page. In restaurant and hotel sections once I choose a specific restaurant or hotel, if I want to go back to my search I have to use always the browser functionalities. The search itself indeed works pretty well. Anyway, the user has always complete freedom to navigate utilizing the menu at the top of the page.
N8	3	The links are overall clear, the problems come with the login and registration. If you don't insert a syntactically valid mail a message pops out when you hoover the input box, but not always.
N9	3	There aren't great web accelerators for expert users, but utilizing the menu or the search bar an expert user can move between the parts of the website without passing through the homepage.

Content		
Heuristic	Score	Comment
C1	4	Usually the pieces of information are correctly distributed but sometimes they are too much or too little (see below). The databases for restaurants and hotels are almost empty but we are not judging it.
C2	4	Labels resemble real-world terms and are pretty intuitive, there are many images. On the restaurant page what "eventi" stands for?
C3	5	There is a common layout within the different sections, it helps the user to learn how to utilize the website.
C4	5	The choices in the website are made mainly via links or clickable images/icons, usually, if you have to insert something there is a drop-down menu to help you choose.
C5	3	Fancy Exception handling in case of missing page. (see figure 26) General error if I put an invalid mail in the newsletter subscription. (see figure 27) No hints when you insert an invalid user in the login form of the general page. It works properly on the restaurant and hotel pages.
C6	N/A	

Presentation		
Heuristic	Score	Comment
P1	5	The text is always clear
P2	4	There are many clickable photos and images as well as icons, and a map when necessary, maybe when you have to select the neighbourhood (for example see figure 25) it could be useful to add a map representation as well.
P3	3	The three icons for the social networks do not work as expected, different buttons with the same features act differently. (see below)
P4	5	Usually the important contents are on the top of the page, there is not a division between left or right.
P5	4	Generally, contents that are close together are semantically related, rarely images are together even if they mean separate things. (see figure 29)
P6	4	Generally the pages share the same layout, but there is a big problem with the hotel pages. (See below)
P7	5	The design of the website is overall minimalist with great pictures in each page.

Extra Comments		
Heuristic	Links	Comment
N6	Exhibitions Top events	The pages have different bread crumbs even if I came there with the same path (see figure 23)
N8	Account Page	I registered to the website without putting any password but then I cannot login because I do not have any password. If I register for the restaurant part of the website the same account is not valid for the main page. The confirmation mail or the mail for the forgotten password comes from a generic Wordpress entity so most of the time they will be put in the spam. Going through different pages I can set one time my password to "test" and the other time the website asks me a 12 character password with special signs.
C1	Universities	This visualization of the links (see figure 24) does not help distinguish between them and when there are a lot of links it becomes annoying.
	Events	There are almost only 3 categories with some event related but you can choose among 28 different categories from a drop-down menu.
	Fuso Orario	There is a whole page only for the time zone.
C2	Restaurants	What "Eventi" stands for in figure 25?
P3	Universities	Hypertext / buttons in the same position with the same color sometimes navigate on the YesMilano website, sometimes change website (figure 28)
P3	Hotel1 Hotel2 Hotel3 Hotel4	Four pages of the same type (hotels) have different layout.

Images:

Home / [What's On](#) / Events / Exhibitions in Milano 2022

Home / EVENTS / Agenda of top events for 2022

Figure 23: Different bread crumbs



Figure 24: too many Hyperlinks

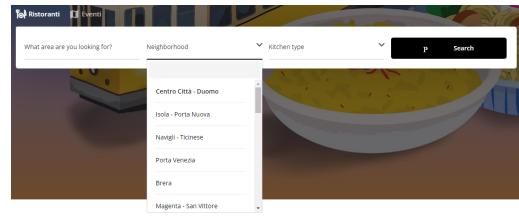


Figure 25: Neighborhood choice



Figure 26: Fancy error page



Figure 27: General error message for invalid mail

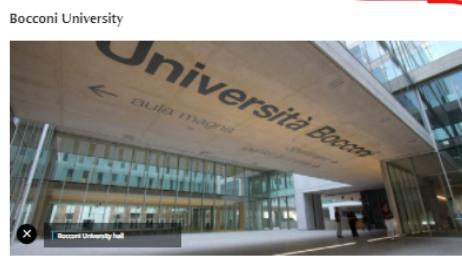
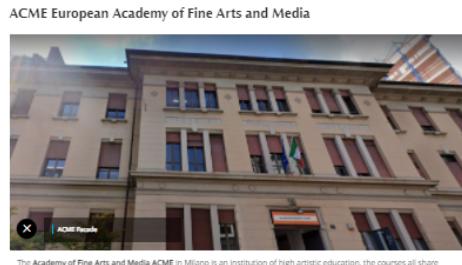


Figure 28: Same layout buttons with different behaviours

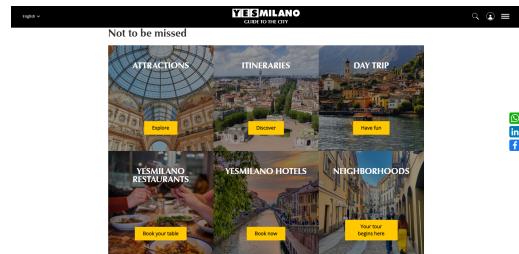


Figure 29: Different topics displayed close together

Evaluator name: Matteo Cordioli

Navigation		
Heuristic	Score	Comment
N1	5	Not all the pages have the same layout but when layout change always means something in the site. ex: change of topics.
N2	3	There isn't a list of all the topics about what a page contains.
N3	3	Menu on the top of the page really useful and well done, the home page landmark in the top banner doesn't always refer to the same HomePage.
N4	2	You are almost never able to do it, and even when you can it doesn't work properly.
N5	2	HomePage, search bar, profile image for user. All the basics one are present.
N6	1	Never present and when available on the screen it's incorrect (bread clamps).
N7	3	In many pages you are not able to go back to the previous page with a button on the site.
N8	3	Many boxes are different one to the others. Some are clickable and others not, users are able to find out it only when goes over the boxes.
N9	3	There aren't any extraordinary new feature for expert user.

Content		
Heuristic	Score	Comment
C1	2	There aren't a lot of description about the topic in the pages, the majority of the information are reliable only in the web page of the current topic.
C2	5	Press the user image in the top banner to log-in.
C3	3	Common layout over all the pages, that helps the user to understand better.
C4	5	All the navigation is based on intuition and the site never ask you to remember.
C5	2	If you fail your log-in the site never tell you what went wrong.
C6	N/A	

Presentation		
Heuristic	Score	Comment
P1	5	Everything is clear and easy to read, the font size is well balanced with all the context in the pages.
P2	4	Some labels don't look like a clickable items even if they are clickable.
P3	4	Social media buttons are always present when you are navigating on different pages.
P4	5	The most important info are always in the top banner.
P5	5	Pages are well connected with each other with a good logic that helps the user during his navigation.
P6	5	Pages are well organized from the point of view of layout, pages on same topic have the same layout.
P7	4	The site have a lot of huge images, but expect for there is not any other non minimalist aspect.