POLITECNICO
MILANO 1863

M.Sc. Computer Science and Engineering

Hypermedia Applications (Web and Multimedia) Project

Usability Evaluation Study 1: Inspection

Ferrara Fabiana
10508565
fabiana.ferrara@mail.polimi.it

Guerra Leonardo
10524955
leonardo1.guerra@mail.polimi.it

Locchi Gaia
10750598
gaia.locchi@mail.polimi.it

Delivery date: March 24th, 2020

Link to the inspected website:
www.visitmonterosa.it

Contents

Chapter 1

Abstract

This document points out the main strengths and weaknesses found analyzing the touristic website of Monte Rosa (www.visitmonterosa.it), which provides a description of the activities, restaurants, hotels and events available in the Monte Rosa ski area, as well as information about the real time situation on the ski slopes, the weather and other useful info for the tourists of the location. It also provides the possibility to book tailor made holidays in the affiliated structures.
To carry out the assessment of the web site, we used the Inspection-based Usability Evaluation and in particular the Heuristic-driven evaluation, based on checklists and usability principles.

Chapter 2

Inspection method

2.1 Overview

The inspection process can be formalized as follows:

2.1.1 Heuristics and Scores definition

The inspectors defined the value range for scoring the heuristics, and the meaning of the numerical values to assign.

2.1.2 Goals identification

The inspectors identified the main user goals that all of them should keep in mind while performing the inspection, pretending to be a user who tries to achieve at least these goals. The selected goals were the following:

- to retrieve real time information about a certain ski slope;

- to gather information about a ski instructor;

- to buy a ski-pass;

- to book an accommodation;

- to browse the activities to experience on Monte Rosa.

2.1.3 Overall results presentation

Each inspector explored the website individually, trying to achieve at least the previously agreed goals, and the partial scores were shared and analyzed by all the inspectors. The overall scores were computed as the average of the individual scores rounded to the integer. Some additional comments have been included together with the related screenshots in order to clarify the result of the inspection reported in the agreed overall scores table.

2.1.4 Individual inspection

Every inspector has made his/her own consideration and provided a personal score for each heuristic.

2.2 Heuristics

The selected heuristics are divided in three groups: Navigation, Content and Layout.

- Navigation: focuses on how easy is for the user to move across the website and find the content he/she is looking for.
  In particular, the heuristics part of this group are:

  - 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 a topic to a related one?
  - "Landmarks": are "landmarks" useful to reach the key parts of the web site?

- Content: is about the quality of information and data provided by the site, regardless the way they are presented, Consistency of Page Structure.
  It is represented by:

  - Information Overload heuristic: is the information in a page too much/too little?

- Layout: stresses the visual image of the website and its effectiveness in terms of expressiveness and ergonomic functions.
  Are part of this group the following heuristics:

  - Text Layout: is the text readable? Is font size appropriate?
  - Interaction Placeholder: are textual or visual labels of interactive elements "expressive"?
  - Spatial Allocation: is the on-screen allocation of contents and visual appropriate for their relevance? Are "semantically related" elements close and "semantically distant" element far away?
  - Consistency of Page Structure: do pages of the same type have the same lay out?

2.3 Scoring Method

The assigned votes to the heuristics range from 0 to 5, meaning that the heuristic is:

- 0: absolutely not satisfied;

- 1: generally not satisfied;

- 2: almost satisfied;

- 3: sufficiently satisfied;

- 4: mostly satisfied;

- 5: fully satisfied.

Chapter 3

Execution of the study

3.1 Overall scores and comments

Category	Heuristics	Score	Comment
Navigation	Interaction Consistency	5	Links and interactions are quite coherent also across different platforms.
	Group Navigation	2	The group navigation is not intuitive enough.
	Structural Navigation	4	The structural navigation is achieved through simple tables of contents.
	Semantic Navigation	1	Semantic navigation happens to be poor, i.e. links to related topics are provided just in few cases.
	"Landmarks"	3	Landmarks are not always useful to reach the key parts of the website and, in some cases, redundant.
Content	Information Overload	4	In general, each section provides the related information in a clear and compact way with few exceptions.
Layout	Text Layout	4	Everything is quite readable and clear, even though some improvements should be considered.
	Interaction Placeholder	2	Visual labels do not seem to be interactive, while some of the textual labels are not expressive and misleading.
	Spatial Allocation	3	Assigning the content on the screen is appropriate for its relevance except for a few items.
	Consistency of Page Structure	4	Pages of the same type have the same visual properties of each component, with not too many differences.

Table 3.1: Agreed Overall Scores

Some screenshots and more detailed comments referring to the previous table are provided in the following.

3.1.1   Navigation

Interaction Consistency

The whole system is adherent with the real world (Screenshot 1) and all pages provide the same header (Screenshot 2), footer (Screenshot 3) and side menu (Screenshot 4).
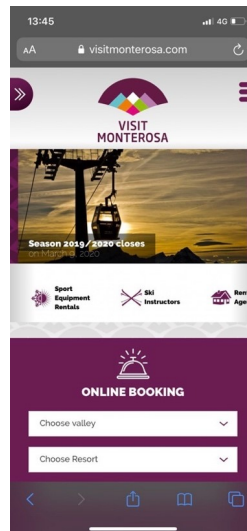
Screenshot 1
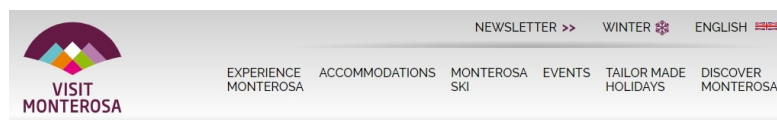
Screenshot 2
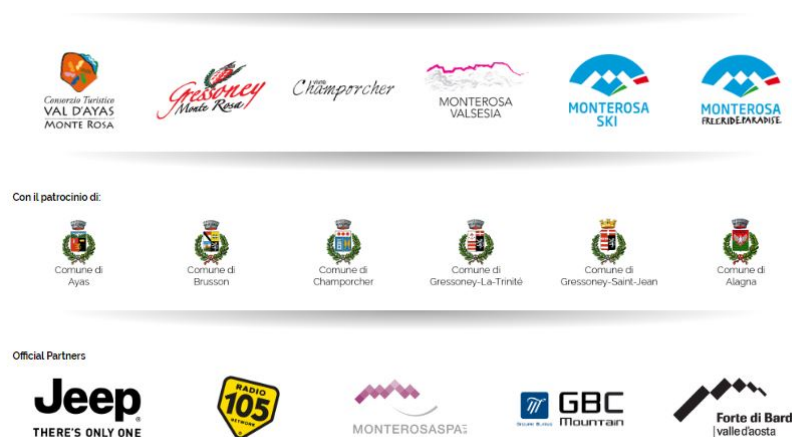
Screenshot 3
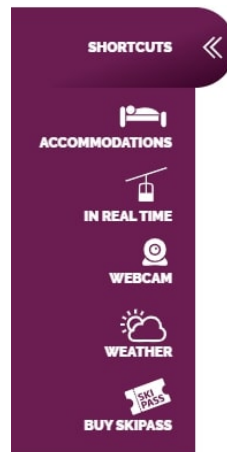
Screenshot 4

Group Navigation

Some menu labels contain drop-down menu with others drop-down sub-menu in turn. For example, the menu entry *Services* has too many sub-items. It maybe requires an own proper label because it is a relevant section for the user (Screenshot 5).
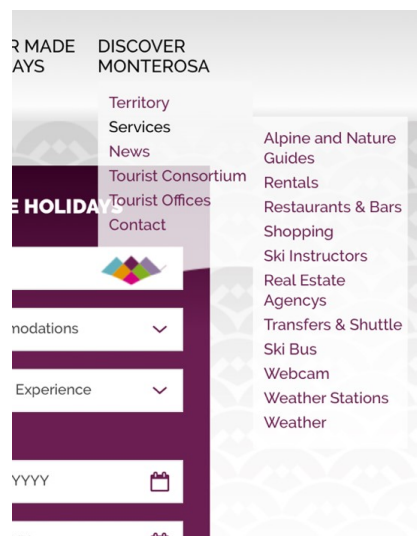
Screenshot 5

The navigation among parent and child items is made easy by the pop-up menu in the header (Screenshot 6), although the navigation child-to-child is not as much immediate (Screenshots 7 and 8). In fact, to navigate among a group of items of the same kind (e.g. *Hotels*) the only way is to select them one by one from the initial list (Screenshot 9): there is no way to go from an hotel to another one directly.
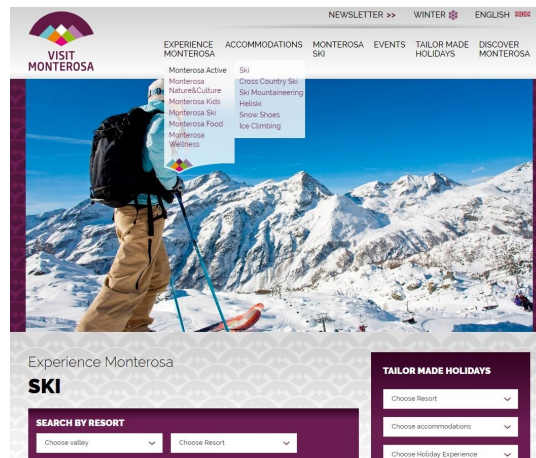
Screenshot 6
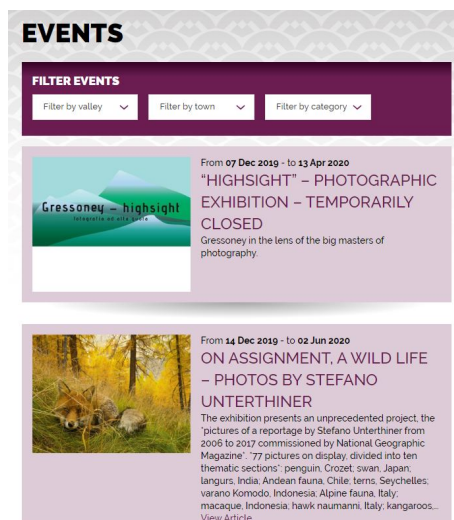
Screenshot 7
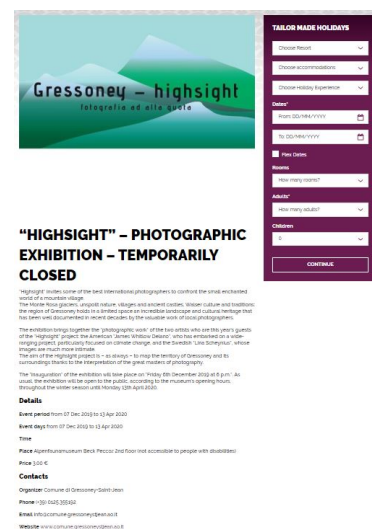
Screenshot 8

Screenshot 9

Moreover, a new user could be confused, as there is no easy way to come back on the

previous page, but the browser arrow. The alternative is to return to the main section through the drop-down menu, because of the lack of a sort of path showing where we are in the website structure (w.t.r. Screenshot 10, could be appropriate something like: *Accommodations > Maison D'Hotes > Chamber D'Hotes - Li Tzatagni*).

Screenshot 10

There is not a proper search bar for the whole website. In fact, the search bar appears just in this last view. Moreover, it is tricky: it is not clear what keywords should be used. (Screenshot 11).
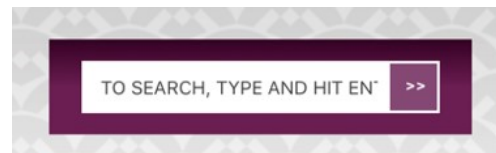
Screenshot 11

Structural Navigation

It is made with a list of images, descriptions and titles (Screenshot 12) or simply the titles of the topic contents (Screenshot13).
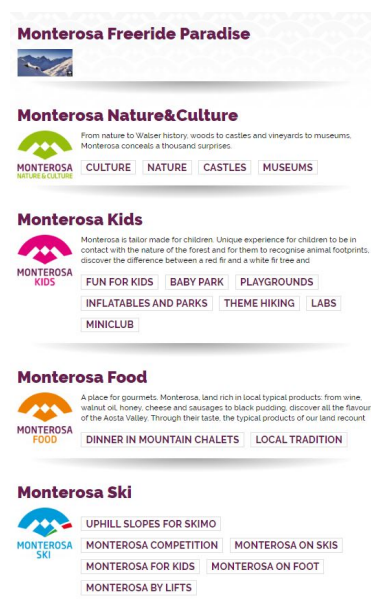
Screenshot 12
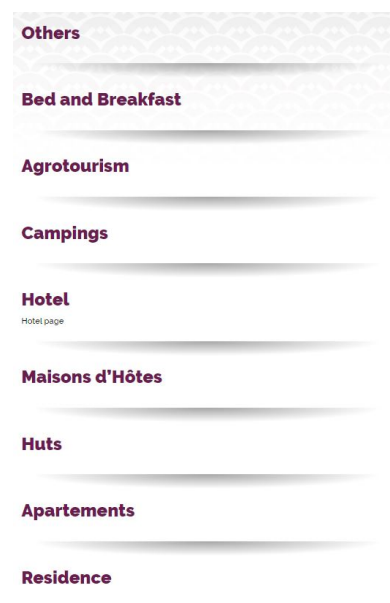
Screenshot 13

Semantic Navigation

There is no way to explore related topics directly from one of them, with few exceptions (e.g. > *Monterosa Ski*).

"Landmarks"

The header (Screenshot 14) allows to easily navigate the main sections of the website, whereas the footer (Screenshot 15) contains the links to all the official partners. The latter is not useful to reach the key parts of the website and could have been positioned into a dedicated area. The side menu (Screenshot 16) offers the possibility to jump to inner topics of the *Monterosa Ski* section, without looking for them in the top-menu, and to view information about the weather. However, these topics are quite similar among each other. Maybe there are section more relevant, such as *Services*, *Events*, *Offers* and *News*, that could take their place. Finally, *Accommodation* is useless because it is not actually a shortcut: the same page is reachable from the header *Accommodation* button.
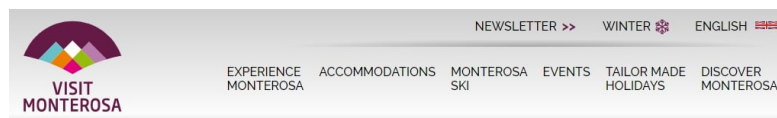
Screenshot 14
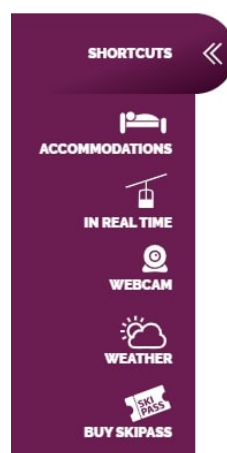
Screenshot 15

Screenshot 16

3.1.2   Content

Information Overload

There are some pages, such as the *Home* page and the *Accommodation* page, which may result in confusing the user due to the large amount of information that provide.

3.1.3   Layout

Text Layout

The text is written with a *Raleway* font and a size of 14 pixels. The readability of the text could be improved increasing the line space and justifying the paragraphs (Screenshot 17), and amplifying the margin between the text and the items around it (Screenshot 18). Moreover, in some pages the description is fully bold (Screenshot 19).

Screenshot 17

Screenshot 18

Screenshot 19

Interaction Placeholder

In the main menu the selected label is neither highlighted, nor bold, nor underlined (Screenshot 20). It results tricky, especially for labels without sub-menus like *Events*. Therefore, the textual labels inside the header are not expressive enough. For example, the semantic difference between the labels *Experience Monterosa* and *Discover Monterosa* is not intuitive (Screenshot 21).

Screenshot 20

Screenshot 21

Spatial Allocation

In some pages there is too much unused space (in particular in the *Accommodation* pages, Screenshot 22). In addition, the sponsors displayed require too much space (Screenshot 23). It is suggested to have a proper and dedicated section.
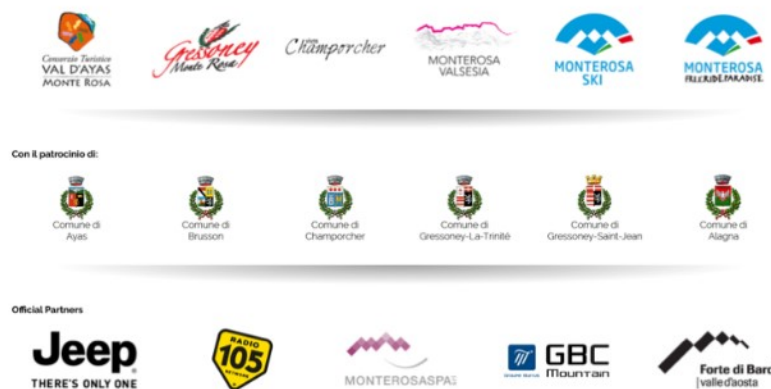
Screenshot 22

Screenshot 23

Consistency of Page Structure

Sometimes there are slight differences between pages, for example:

- *Experience Monterosa*, *Monterosa Ski*, *Events* and *Accommodation*: the last one has a search-for-holiday form (Screenshot 24) a little bit different from the other ones (Screenshot 25). Moreover, *Experience Monterosa*, *Accommodation* and *Events* provide the possibility to access their contents directly from the page (Screenshot 26), while *Monterosa Ski* does not (Screenshot 27);

- some pages have different text styles (Screenshot 28);

- the *Weather* button in the shortcut menu does not open a web page like the other ones, but it shows a pop-up window (Screenshot 29).

Screenshot 24

Screenshot 25

Screenshot 26

Screenshot 27

Screenshot 28

Screenshot 29

3.2   Individual scores

The following table displays the individual scores given by each inspector, here called
Inspector 1, *Inspector 2* and *Inspector 3*.

Category	Heuristics	Scores		
		Inspector 1	Inspector 2	Inspector 3
Navigation	Interaction Consistency	5	4	5
	Group Navigation	2	1	3
	Structural Navigation	4	3	4
	Semantic Navigation	0	2	2
	"Landmarks"	3	5	2
Content	Information Overload	4	4	4
Layout	Text Layout	4	4	3
	Interaction Placeholder	1	4	2
	Spatial Allocation	2	3	4
	Consistency of Page Structure	3	4	4

Table 3.2: Individual Scores

Chapter 4

Discussion of the results

In this chapter the results of the inspection are summarized with the help of some charts.

4.1   Charts

The column chart entitled *Individual Heuristic Scores* represents the distribution of the individual scores for each heuristic. As can be seen, the main differences between the scores assigned by each inspector occurred in the Navigation category, whereas Content was the category on which the inspectors agreed the most. In general, the majority of the scores is sufficient (i.e., greater or equal than 3).

The *Categories Average Scores and Heuristics Overall Scores* column chart provides the overall scores for each heuristics and the average scores for the related categories.
The Content category resulted the highest rated with an average score of 4 out of 5, the Navigation category was at the bottom with an average score of 3 out of 5 and the Layout category got an average score slightly over 3 out of 5.
We see that the heuristic which obtained the best overall score was Interaction Consistency, while the worst score was assigned to Semantic Navigation.
As a final point, you may notice that the distribution of the scores is quite regular for each category except for Navigation which holds the highest and the lowest scores at the same time.
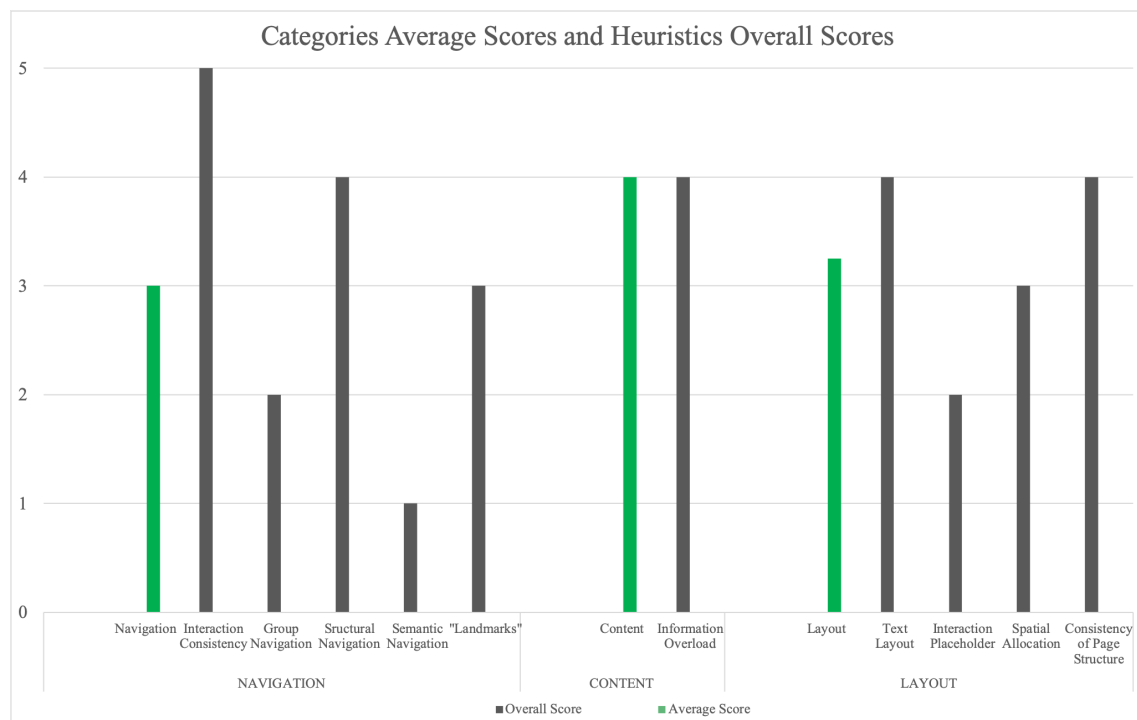
4.2   Conclusions

The individual scores, together with the overall scores and their averages, indicate that the usability of the inspected website is overall satisfactory from the point of view of content and layout but has some lacks with regards to navigation.

The main issue regards Semantic Navigation as there is no way to reach related topics directly from one of them. It makes the navigation static and does not entice the user to explore other sections. It is suggested to add more links to the elements related to the page.

As plus points, the interaction between pages is consistent, the text is readable and the information is well-organized.

In conclusion, the main difficulty that was encountered by the team of inspectors was the first individual approach to the inspection. In fact, each member was initially in doubt about the proper meaning of some heuristics and their evaluation. However, when it came to discussing the results together, every doubt was clarified and the team easily reached an agreement.