POLITECNICO
MILANO 1863

Hypermedia Applications Project
a.y. 2020-21

# Inspection and Usability Test Document

Bresciani Matteo
D'Ascoli Gabriele

Inspected website:

moviri

# Contents

# Chapter 1

# Abstract

The aim of this document is to report the Inspection-based Usability Evaluation and the User-Testing-based Usability Evaluation of Moviri website which can be found at the following url `https://www.moviri.com/`.
Into this document we analyze the website of Moviri, a multinational consulting and software group of companies, helping customers harness the power of transformative technologies; in the various sections the website shows the services offered to the clients: performance engineering, analytics, security and IoT.
In the Inspection section are reported the steps followed to reach the objective, the evaluation for the selected heuristics and examples to demonstrate the reason why certain ratings has been given. Then, in the User-Testing part are described the steps procedure that tester followed: 1. Execute given task following scenarios while they are evaluated with specific criteria 2. Surf the website freely 3. Fulfill a form with some questions related to landmarks, navigation and layout

# Part I

# Inspection

# Chapter 2

# Overview

In this part of the document we're focusing on the evaluation of usability of *Moviri* through **inspection**. Inspection allow us to find usability issues and obstacles for the user when interacting with a web application. In particular, this is done thanks to **heuristics** which guide the expert to explore the website and check compliance with usability principles.

## 2.1 Goals

Before inspection, goals are defined in order to deeply inspect the website and to focus on the main aspect.

- Read experiences of other companies and changes adopted;
- Find the appropirate technology needed;
- Interact with Moviri due to become a new customer;

## 2.2 Inspection method

We decide to adopt 2 different set of heuristics in order to inspect the website.

### 2.2.1 Mile's heuristics

These heuristics are divided into different categories relevant to a particular aspect.

**Navigation**: It aims to evaluate the easiness with which an user navigates into each part of the website.

- **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 semantic components of a Topic?
- **Semantic Navigation**: is it easy to navigate among group members and from a group introductory page to group members (and the other way around)?
- **Landmarks**: is it easy to navigate from a Topic to a related one?

**Contents**: It indicates how in the website information is well balanced in each page and section.

- **Information Overload**: is the information in a page too much or too little and does it fit the page layout?

**Layout**: It serves to estimate if the website is graphically expressive enough and readable.

- **Text Layout**: is the text readable? Is font size appropriate?
- **Interaction Placeholder-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 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 (same visual properties of each component and similar lay-out organization of the various elements?)

### 2.2.2 Nielsen's heuristics

These belongs to a set of 10 heuristics, which cover each aspect relevant for the evaluation. However, we decide not to evaluate every heuristic but only some of them. We decide this because in our opinion cannot be all classified in this website. The heuristics are the following:

**H1 - Visibility of system status**: the design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time;

**H2 - Match between system and the real world**: the design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order;

**H4 - Consistency and standards**: users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions

**H5 - Error prevention**: good error messages are important, but the best designs carefully prevent problems 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;

**H7 - Flexibility and efficiency of use**: shortcuts — hidden from novice users — may speed up the interaction for the expert user such that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions;

**H8 - Aesthetic and minimalist design**: interfaces should not contain information which is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility;

## 2.3 Scoring metric

Before the inspection, a metric is defined in order to evaluate each heuristic. The evaluation consist in the assigment of a score from 0 to 5. The following image gives an explanation of each score.

- **0**: The heuristics is not satisfied. Many severe violations are detected;;
- **1**: The heuristics is not satisfied. Few severe violations are detected;
- **2**: The heuristics is not satisfied because of relevant issues;
- **3**: The heuristic is partially satisfied with some issues detected;
- **4**: The heuristic is satisfied, but it can be improved;
- **5**: No issue are detected. The heuristic is fully satisfied;

# Chapter 3

# Scores on each heuristics

## 3.1 Mile's heuristics

### 3.1.1 Navigation

| Heuristic | Score | Comment |
|---|---|---|
| Interaction Consistency | 4.5 | The website has a good interaction structure reflected in the pages of the same type. Elements as header, topbar and footer are present in every screen. There could be more consistency in links shape. |
| Group Navigation | 4.5 | Navigation from a list of items to its members is acceptably easy and intuitive, as well as between group members and from group member to the list. |
| Structural Navigation | 4 | It's acceptably intuitive between the components of a topic, well enough described and presented; it would have been more appropriate if it were equable between the sections. |
| Semantic Navigation | 3.5 | Even if there are almost always links to related contents, navigation between related topics is not always accessible in both directions. |
| Landmarks | 3.5 | Present in the various pages of the website but which do not always identify clear and easy-to-read references. |

#### Interaction Consistency

The website offers a significant experience due to interaction structure reflected in the pages of the same type. As a matter of fact, its structure is based on some elements available in each page:

- **Header** (figure 3.1): it links to different pages. In particular it allow users to navigate on:
  - Company's **social network profiles** (*Facebook, Twitter, Instagram and Linkedin*);
  - **News section** for incoming report regarding Moviri;
  - **Contact section** due to interact with Moviri's employees;
  - **Moviri Careers**. It's a secondary website of Moviri where there are informations regarding job oppurtunities (+ genaral description of lavorare con moviri);
- **Topbar** (figure 3.2): allows a user to surf in each section of the website. In addition provides a search function for any content;
- **Footer** (figure 3.3): provides the same links to different sections of topbar and header, but at the foot of each page;

At the end, there could be more consistency in links shape.


Figure 3.1: Header.


Figure 3.2: Topbar.


Figure 3.3: Footer.

### Group Navigation

The navigation between the various components of a topic is intuitive, thanks to the good arrangement of the parts, that almost always have a title, an image and a short description. However, structural navigation slightly change between the various sections. For instance, in the *Business Lines* section each topic

is represented by the combination of image and description side by side and unpaired with respect to the next one, while in the *Resource* section each item is placed in a grid (fig. 3.4) with its title and a respective image.

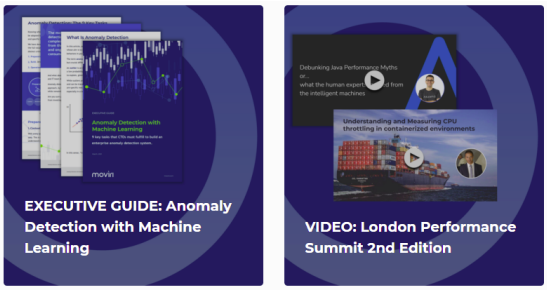
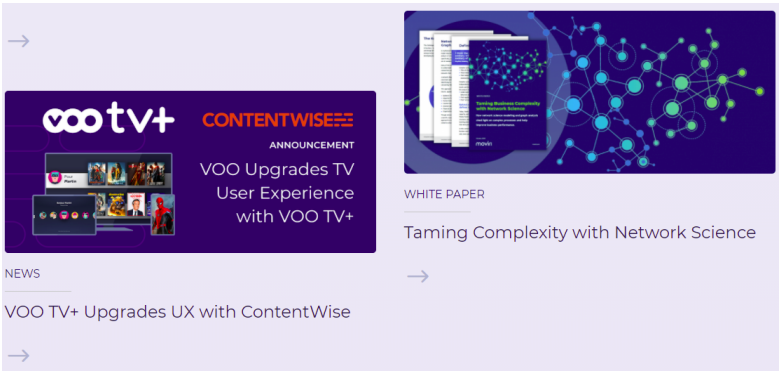



Figure 3.4: Items in the resource section.

### Structural Navigation

Thanks to components such as topbar and footer, is possibile to navigate between each section through links. The fact that links are placed both high and low helps user's experience to be more intuitive, since it is not possible to go to the previous or next page. Anyway the Structural Navigation along each page is always easily feasible and understandable.




### Semantic Navigation

Navigation between pages of different sections is easily allowed by topbar and footer. Nevertheless, there are situations in which this is not reversible. In particular this is not possibile in the *Resource* section after the click of an item; in fact, it redirects to pages of other websites leaving Moviri domain. It's sufficient to go back with the undo function of the browser, but could be quite uncomfortable.

#### Landmarks

Landmarks cover all major contents of the website and they can be found both top and buttom part of the website in each section; Anyway, they could be improved to be more clear, evident and easily readable (fig. 3.5). It's always possibile to be redirect to the homepage but the reference is not immediately understandable for a user visiting the website for the first time, considering that it is not identified with the well recognized term **"Home"**.


Figure 3.5: Landmarks are highlighted.

### 3.1.2 Content

| Heuristic | Score | Comment |
|---|---|---|
| Information Overload | 4.5 | Informations clearly distributed and organized in a minimalist way almost in all pages. |

#### Information Overload

Each information, both graphical and textual, is well balanced in each section of the website. This is one of the strength of website, even if in some sections the minimalism appears too grave and risks leading to a lack of information.

### 3.1.3 Layout

| Heuristic | Score | Comment |
|---|---|---|
| Text Layout | 4 | The text is readable text and the font is appropriate in the various sections. Colour choice could be more improved. |
| Interaction Placeholder-Semiotics | 4 | Textual and visual labels are expressive and reflect a good interaction/effect aspect, excluded some cases in which there is an inappropriate response to that expected. |
| Interaction Placeholder-Consistency | 4 | Labels for interactive elements are well orgenized in term of position but the icon are not always consistent and can be slightly improved. |
| Spatial Allocation | 4 | Generally fine and appropriate allocation of contents in the various pages, amendable the organization of semantically-distant elements in some pages. |
| Consistency of Page Structure | 3 | Page structure of each topic is consistent among pages but refering to different groups we detected severe changes of structure. |

**Text Layout**

Textual contents are easy-to-read. This is thanks to the font used in each point which is always proportional to the importance of the information. For instance, title or quotes has a larger font then simple description. About the choice for the colour of the font we note that, even if almost always it matches with the rest of the layout, in certain parts the choice of the colour in contrast with the background is not absolutely appropriate.

**Interaction Placeholder-Semiotics**

Textual and visual labels are expressive almost in every case. Only few situations link are not visible by underling or a hand-cursor. In addition we found relevant issues characterized by a strange behaviour in some case, for instance clicking on partners image in the Business Line section, as a result of which the page come back to the top of the page; moreover, this happens cliking on image TODO. After all, labels of interactive elements are consistent and reflect acceptably good the interaction and the effect.
Textual and visual labels are expressive almost in every case. Only few situations link are not visible by underling or a hand-cursor. In addition we found relevant issues caracterized by a strange behaviour in some case. For instance, clicking on partners image in the *Business Line* section, the page come back at the top of the page. After all, labels of interactive elements are consistent and reflect acceptably good the interaction and the effect.

**Interaction Placeholder-Consistency**

Considering the website in its integrity, it doesn't show so many problems in terms of wording, icon and position, so, given its easy of use, we have not find relevant violaitons. Anyway we highlight 2 issues:

- The **Business Lines** doesn't always work as homepage;
- Even if the labels are well organized in term of position, the choice of the icon are not always consistent.

### Spatial Allocation

Each type of content is allocated spatially, in an appropriate way respect to the relevance. Semantically related elements are close to each other but we would appreciate a better organization in the screen and spacing of semantically distant elements; in particular we refer, for example, to the "Industries" section: different items should be space out a little (fig. 3.6).


Figure 3.6: Industries section. In this section items are placed irregularly.

### Consistency of Page Structure

Page structure of the topics is consistent among the pages, with few differences about contents allocation; but refering to different groups the structure often changes in a substantial way. Anyway, in the resource section users can be redirected to other websites which have a completely different structure and font too; so they are absolutely not consistent, contrary to the topics of same sections.

### 3.1.4 Nielsen's Heuristics

| Heuristic | Score | Comment |
|---|---|---|
| Visibility of system status | 2 | User is not correctly informed about the ongoing process and is not oriented in the web site tree. |
| Match between system and real world | 4 | The language used by the system is quite user friendly, not suitable for inexperienced users. |
| Consistency and Standards | 3.5 | Words and symbols used in the system are coherent in terms of consistency but not enough in terms of standards of use. |
| Error prevention | 4 | he minimalist and clear design prevent any kind of error but we would appreciate the use of link labels for a matter of semantic clarity. |
| Flexibility and efficiency of use | 5 | The system fully respects the Efficiency and Flexibility criteria, offering the user a high visit experience. |
| Aesthetic and minimalist design | 4.5 | The web site has an essential visual design with a basic but clear presentation of the content, amendable in some section. |

#### Visibility of system status

The system hardly ever inform the user about what is going on; in general there are not status bars or orientation info, what is only present is the labels of the current position of the user but not the ongoing process. The problem is expanded by the fact that some items, for example in the "Industries" section, are opened in another web page, without being able to understand what the starting page is and failing to go back.

#### Match between system and real world

What we detected is that the system uses a language acceptably understandable for the user profile that can visit the web site, with an exposure of the information that follows a logical and natural order. Whereas the web site is intended for a user with technical skills, terms and definition used are high specialized and not suitable for an unskilled user.

#### Consistency and Standards

The choose of words and symbols in the system is coherent in terms of consistency, following good a platform internal convention but some elements and definitions often doesn't follow basic standards of use; for example, what we didn't appreciate is the lack of the internationally recognized key word **"Home"** replaced by **Business Lines**, that it doesn't immediately identify well its use.

#### Error prevention

The system use a minimalist and very clear design that prevent the user to avoid both slips and mistakes in the choice of the page to visit but, even if all the groups and section are nominated in a unique and precise way it was usefull the use of link labels that can introduce to the user the link meaning, avoiding any kind of error in advance.

### Flexibility and efficiency of use

Efficiency of use is guaranteed by the presence in all the pages of the web site of interaction elements, clear landmarks placed in a comfortable and intuitive way; we didn't denote a particular flexibility but this is not a disabling limit given tothe fact that the user is well profiled and the system is quite good designed to satisfy him.

### Aesthetic and minimalist design

The system, on almost all pages, keep the content and visual design focused on the essentials, with some exceptions: for example, the difference between the **"Industries"** (fig. 3.7) and the **"Resources"** (fig. 3.8) is tangible, considering that in the latter there is a better distribution and proportion between the informations presented; anyway, the visual elements on the interface support the user's primary goals without ever falling into a flat design.

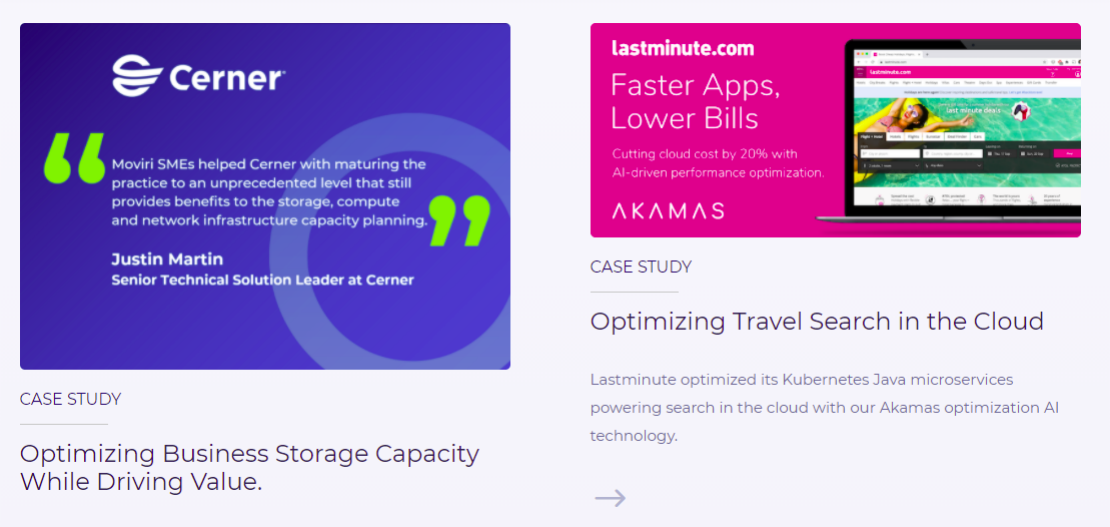



Figure 3.7: Industries section.


Figure 3.8: Resources section.

# Chapter 4

# Result and Discussion

This section aims to join every results obtained in the last chapter in order to give a unique score for each heuristic section. This is done by computing the arithmetic average of the scores of *Navigation*, *Contents* and *Layout* sections.

## 4.1 Scores

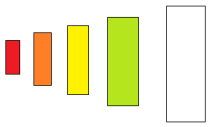
### 4.1.1 MiLE

#### Navigation

The navigation score is given by the mean of the 5 aspects analyzed in the section 3.1.1.

The final result is: $(4.5 + 4.5 + 4 + 3.5 + 3.5)/5 = \mathbf{4}$

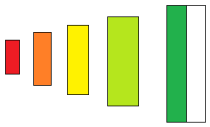
Therefore, content aspect in the Moviri website is handled well, even if could be improved again.



#### Contents

The score of this section is given simply by the score evaluated by the *Information Overload* heuristic which is **4.5**.

So basing only this heuristic, content of the website is almost fully satisfied. Improvements could be done, but fixes will be minimal.

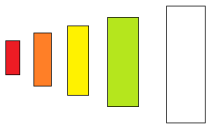


**Layout**

The layout score is given by the mean of 5 aspects analyzed in the section 3.1.3.

The final result is: $(4 + 4 + 4 + 4 + 3)/5 = 3.8$
*which can be approximated to* **4**

Basing on the result, layout of the website it's pretty well designed, but with some critical issues that should be fixed in order to have the best experience.



### 4.1.2 Nielsen

Instead, the evaluation with this set of heuristics is made by making the average of all the six heuristcs analyzed: $(2 + 4 + 3.5 + 4 + 5 + 4.5)/6 = 3.8$
*which can be approximated to* **4**.

## 4.2 Comments

As evidenced by the results obtained from the analysis carried out by our team, the site has high standards obtained on the various fields evaluated and, although there are criticalities widely described in the appropriate sections, as a whole it is functional, well done and adequate for its purpose of use; our work concerning the Inspection of the web site therefore ends with an overall satisfactory score.

# Part II

# Usability Test

# Chapter 5

# Overview

In this part of the document we evaluate usability of Moviri basing on **User Testing**. User testing is a technique based on user-experience used to evaluate a product by testing it on selected users. Instead of inspection, this is more focused on human–computer interaction in order to eveluate the easyness of a website.

## 5.1 Design of the study

### 5.1.1 User Profile

User profile definition is very relevant for user testing. In fact, this help us to understand who can be recruited for user testing. The user profile detected are the following:

**Profile 1**

- *Age*: between 25 and 30 years old;
- *Civil state*: irrelevant;
- *Technology capabilities*: General knowledge about Computer Science;

**Profile 2**

- *Age*: between 40 and 50 years old;
- *Civil state*: irrelevant;
- *Technology capabilities*: Simple web user with any particular capabilities;

### 5.1.2 Scenarios

In this subsection are shown the goals of the user testing followed by the tasks needed to reach them:

**Scenario 1**: You need a job and you know that Moviri has a lots of open positions. You're applying for a job opportunity.

1. Visit the website section for career service;
2. Start the application procedure;
3. Choose a type of job offer that is suitable for your background (such as Software Engineering);
4. Select the position for which you want to run for;
5. Insert your data in the form for the application;
6. Turn to the homepage;

**Scenario 2**: you're looking for a white paper related to a particular service/solution for your company.

1. Visit the website section for consulting Moviri's resource;
2. Find and select the white paper that you need;
3. Fill out the form with your information in order to receive the white paper by e-mail;
4. Turn to the homepage;

**Scenario 3**: you're looking for a initiative called "Keep IT Up" and you want to keep current on it.

1. Visit the website section relevant to news;
2. Find the article about "Keep IT Up" initiative and select it;
3. After you get some info from the article, in order to stay up fill out the form;

### 5.1.3 Variable Measure

In order to evaluate user testing on some metrics, usability variables are defined:

- **Time of execution**: it's measure in *seconds* and represents the time spent on a given task. It starts from the moment in which user begin focusing his attention on it;
- **Effectiveness**: it represents the task success rate. It's measured by a value **between 0 and 1**:
  - *1.0*: task completed with success;

  - *0.5*: task partially completed;
  - *0.0*: task is not completed;

- **Errors**: it's measured by an integer representing the number of errors made during the execution on a given task;
- **Perceived tasks difficulty**: it's expressed by an integer *between 0 and 5* given by an user after the completion of a given task;
- **Satisfaction**: it's given by an integer *between 0 and 5* provided by user immediately after the task execution;

### 5.1.4 Final Survey

After the execution of every tasks, a final survey is provided to users in order to have additional collected data. This provides extra feedbacks about aspects already highlighted during the inspection. The questions, provided through a survey made with Google Forms at the link `https://forms.gle/rb5E63vonvbmib74A`, are the following:

1. Did you find virtual design intuitive and consistent?
2. Did you find images dimension good and well positioned?
3. Did you find the navigation between each sections appropriate?
4. How much easy was to navigate between different website domains due to task completion?
5. How much easy was to find landmarks?
6. How much easy was to carry out each task (in general)?

# Chapter 6

# Execution of the study

In this section are attached the values sampled during the the execution of the user testing. In particular, 5 user was choosen for this user testing.

## 6.1 Hardware and Software settings

The study was executed using laptops by each user. There are no other type of hardware components used to make this test. Instead, for the software side we adopt *Microsoft Teams* in order to perform tests remotely. In this way, each variable has been evaluated directly using a *task sheet*.

## 6.2 Evaluations

Here it's possible to look at the results collected in tables, one for each user involved in the test.

### 6.2.1 Profile 1

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 9 | 1 | 0 | 5 |
| 1 | 2 | 8 | 1 | 0 | 5 |
| 1 | 3 | 10 | 1 | 0 | 5 |
| 1 | 4 | 5 | 1 | 0 | 5 |
| 1 | 5 | 42 | 1 | 0 | 5 |
| 1 | 6 | 6 | 1 | 0 | 4 |
| 2 | 1 | 10 | 1 | 0 | 4 |
| 2 | 2 | 14 | 1 | 0 | 5 |
| 2 | 3 | 32 | 1 | 0 | 5 |
| 2 | 4 | 10 | 1 | 0 | 4 |
| 3 | 1 | 10 | 1 | 0 | 5 |
| 3 | 2 | 23 | 1 | 0 | 4 |
| 3 | 3 | 42 | 1 | 0 | 5 |

Table 6.1: User ID 01 (Profile 1)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 14 | 1 | 0 | 5 |
| 1 | 2 | 3 | 1 | 0 | 5 |
| 1 | 3 | 25 | 1 | 0 | 5 |
| 1 | 4 | 13 | 1 | 0 | 5 |
| 1 | 5 | 44 | 1 | 0 | 5 |
| 1 | 6 | 31 | 1 | 1 | 2 |
| 2 | 1 | 5 | 1 | 0 | 5 |
| 2 | 2 | 23 | 1 | 0 | 5 |
| 2 | 3 | 28 | 1 | 0 | 5 |
| 2 | 4 | 5 | 1 | 0 | 5 |
| 3 | 1 | 7 | 1 | 0 | 5 |
| 3 | 2 | 23 | 1 | 0 | 5 |
| 3 | 3 | 31 | 1 | 0 | 5 |

Table 6.2: User ID 02 (Profile 1)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 11 | 1 | 0 | 5 |
| 1 | 2 | 6 | 1 | 0 | 5 |
| 1 | 3 | 17 | 1 | 0 | 5 |
| 1 | 4 | 9 | 1 | 0 | 5 |
| 1 | 5 | 43 | 1 | 0 | 5 |
| 1 | 6 | 19 | 1 | 0 | 4 |
| 2 | 1 | 8 | 1 | 0 | 5 |
| 2 | 2 | 19 | 1 | 0 | 5 |
| 2 | 3 | 30 | 1 | 0 | 4 |
| 2 | 4 | 8 | 1 | 0 | 5 |
| 3 | 1 | 9 | 1 | 0 | 5 |
| 3 | 2 | 23 | 1 | 0 | 4 |
| 3 | 3 | 35 | 1 | 0 | 5 |

Table 6.3: User ID 03 (Profile 1)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 12 | 1 | 0 | 5 |
| 1 | 2 | 13 | 1 | 0 | 5 |
| 1 | 3 | 11 | 1 | 0 | 5 |
| 1 | 4 | 8 | 1 | 0 | 5 |
| 1 | 5 | 25 | 1 | 0 | 5 |
| 1 | 6 | 13 | 1 | 0 | 4 |
| 2 | 1 | 12 | 1 | 0 | 5 |
| 2 | 2 | 11 | 1 | 0 | 5 |
| 2 | 3 | 29 | 1 | 0 | 5 |
| 2 | 4 | 11 | 1 | 0 | 5 |
| 3 | 1 | 15 | 1 | 0 | 5 |
| 3 | 2 | 23 | 1 | 0 | 4 |
| 3 | 3 | 22 | 1 | 0 | 5 |

Table 6.4: User ID 04 (Profile 1)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 12 | 1 | 0 | 5 |
| 1 | 2 | 10 | 1 | 0 | 5 |
| 1 | 3 | 14 | 1 | 0 | 5 |
| 1 | 4 | 9 | 1 | 0 | 5 |
| 1 | 5 | 34 | 1 | 0 | 5 |
| 1 | 6 | 16 | 1 | 0 | 4 |
| 2 | 1 | 9 | 1 | 0 | 5 |
| 2 | 2 | 15 | 1 | 0 | 5 |
| 2 | 3 | 29 | 1 | 0 | 5 |
| 2 | 4 | 9 | 1 | 0 | 5 |
| 3 | 1 | 12 | 1 | 0 | 5 |
| 3 | 2 | 22 | 1 | 0 | 5 |
| 3 | 3 | 31 | 1 | 0 | 5 |

Table 6.5: User ID 05 (Profile 1)

### 6.2.2 Profile 2

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 40 | 1 | 0 | 3 |
| 1 | 2 | 5 | 1 | 0 | 5 |
| 1 | 3 | 40 | 0.5 | 0 | 5 |
| 1 | 4 | 7 | 1 | 0 | 5 |
| 1 | 5 | 40 | 1 | 0 | 5 |
| 1 | 6 | 45 | 0.5 | 1 | 3 |
| 2 | 1 | 13 | 1 | 0 | 5 |
| 2 | 2 | 23 | 1 | 0 | 5 |
| 2 | 3 | 30 | 1 | 0 | 5 |
| 2 | 4 | 74 | 0 | 2 | 2 |
| 3 | 1 | 30 | 1 | 0 | 5 |
| 3 | 2 | 5 | 1 | 0 | 5 |
| 3 | 3 | 33 | 1 | 0 | 5 |

Table 6.6: User ID 06 (Profile 2)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 15 | 1 | 0 | 5 |
| 1 | 2 | 12 | 1 | 0 | 5 |
| 1 | 3 | 27 | 0.5 | 0 | 5 |
| 1 | 4 | 6 | 1 | 0 | 4 |
| 1 | 5 | 25 | 1 | 0 | 4 |
| 1 | 6 | 26 | 1 | 0 | 5 |
| 2 | 1 | 17 | 1 | 0 | 5 |
| 2 | 2 | 34 | 1 | 0 | 3 |
| 2 | 3 | 28 | 1 | 1 | 4 |
| 2 | 4 | 11 | 1 | 1 | 5 |
| 3 | 1 | 14 | 1 | 0 | 5 |
| 3 | 2 | 42 | 0.5 | 0 | 3 |
| 3 | 3 | 48 | 1 | 0 | 5 |

Table 6.7: User ID 07 (Profile 2)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 25 | 1 | 0 | 4 |
| 1 | 2 | 9 | 1 | 0 | 5 |
| 1 | 3 | 32 | 1 | 0 | 5 |
| 1 | 4 | 7 | 1 | 0 | 5 |
| 1 | 5 | 40 | 1 | 0 | 5 |
| 1 | 6 | 32 | 1 | 1 | 3 |
| 2 | 1 | 5 | 1 | 0 | 5 |
| 2 | 2 | 28 | 1 | 0 | 5 |
| 2 | 3 | 24 | 1 | 0 | 5 |
| 2 | 4 | 35 | 0 | 1 | 2 |
| 3 | 1 | 23 | 1 | 1 | 3 |
| 3 | 2 | 34 | 1 | 0 | 5 |
| 3 | 3 | 32 | 1 | 0 | 5 |

Table 6.8: User ID 08 (Profile 2)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 13 | 1 | 0 | 4 |
| 1 | 2 | 11 | 1 | 0 | 4 |
| 1 | 3 | 26 | 0.5 | 1 | 4 |
| 1 | 4 | 6 | 1 | 0 | 5 |
| 1 | 5 | 24 | 1 | 0 | 5 |
| 1 | 6 | 20 | 1 | 0 | 5 |
| 2 | 1 | 16 | 1 | 0 | 4 |
| 2 | 2 | 31 | 1 | 0 | 4 |
| 2 | 3 | 22 | 0.5 | 1 | 4 |
| 2 | 4 | 18 | 1 | 0 | 5 |
| 3 | 1 | 13 | 1 | 0 | 5 |
| 3 | 2 | 38 | 1 | 0 | 5 |
| 3 | 3 | 47 | 1 | 0 | 3 |

Table 6.9: User ID 09 (Profile 2)

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 32 | 1 | 1 | 3 |
| 1 | 2 | 11 | 1 | 0 | 4 |
| 1 | 3 | 26 | 1 | 1 | 4 |
| 1 | 4 | 6 | 1 | 0 | 5 |
| 1 | 5 | 24 | 1 | 0 | 5 |
| 1 | 6 | 20 | 1 | 1 | 5 |
| 2 | 1 | 18 | 1 | 0 | 5 |
| 2 | 2 | 25 | 1 | 0 | 5 |
| 2 | 3 | 28 | 0.5 | 1 | 5 |
| 2 | 4 | 18 | 1 | 0 | 5 |
| 3 | 1 | 11 | 1 | 0 | 5 |
| 3 | 2 | 33 | 1 | 0 | 5 |
| 3 | 3 | 26 | 1 | 0 | 4 |

Table 6.10: User ID 10 (Profile 2)

# Chapter 7

# Result Usability test

## 7.1 Usability test

Here are shown the results of the previous sections aggregated making the average of the values for each different user profile:

### 7.1.1 Profile 1

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 11.6 | 1 | 0 | 5 |
| 1 | 2 | 8 | 1 | 0 | 5 |
| 1 | 3 | 15.4 | 1 | 0 | 5 |
| 1 | 4 | 8.8 | 1 | 0 | 5 |
| 1 | 5 | 37.6 | 1 | 0 | 5 |
| 1 | 6 | 17 | 1 | 0.2 | 3.8 |
| 2 | 1 | 8.8 | 1 | 0 | 4.8 |
| 2 | 2 | 16.4 | 1 | 0 | 5 |
| 2 | 3 | 29.6 | 1 | 0 | 5 |
| 2 | 4 | 8.6 | 1 | 0 | 4.6 |
| 3 | 1 | 10.6 | 1 | 0 | 5 |
| 3 | 2 | 22.8 | 1 | 0 | 4.8 |
| 3 | 3 | 32.2 | 1 | 0 | 5 |

Table 7.1: Average results of Profile 1

### 7.1.2 Profile 2

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 25 | 1 | 0 | 3.8 |
| 1 | 2 | 9.6 | 1 | 0 | 4.6 |
| 1 | 3 | 30.2 | 1 | 0.4 | 4.6 |
| 1 | 4 | 6.4 | 1 | 0 | 4.8 |
| 1 | 5 | 34.6 | 1 | 0 | 4.8 |
| 1 | 6 | 42.25 | 1 | 0.2 | 4.2 |
| 2 | 1 | 13.8 | 1 | 0 | 4.8 |
| 2 | 2 | 28.2 | 1 | 0 | 4.4 |
| 2 | 3 | 28.8 | 1 | 0.6 | 4.6 |
| 2 | 4 | 34.5 | 0.6 | 0.6 | 3.8 |
| 3 | 1 | 18.2 | 1 | 0 | 4.6 |
| 3 | 2 | 30.4 | 1 | 0 | 4.6 |
| 3 | 3 | 40.4 | 1 | 0 | 4.4 |

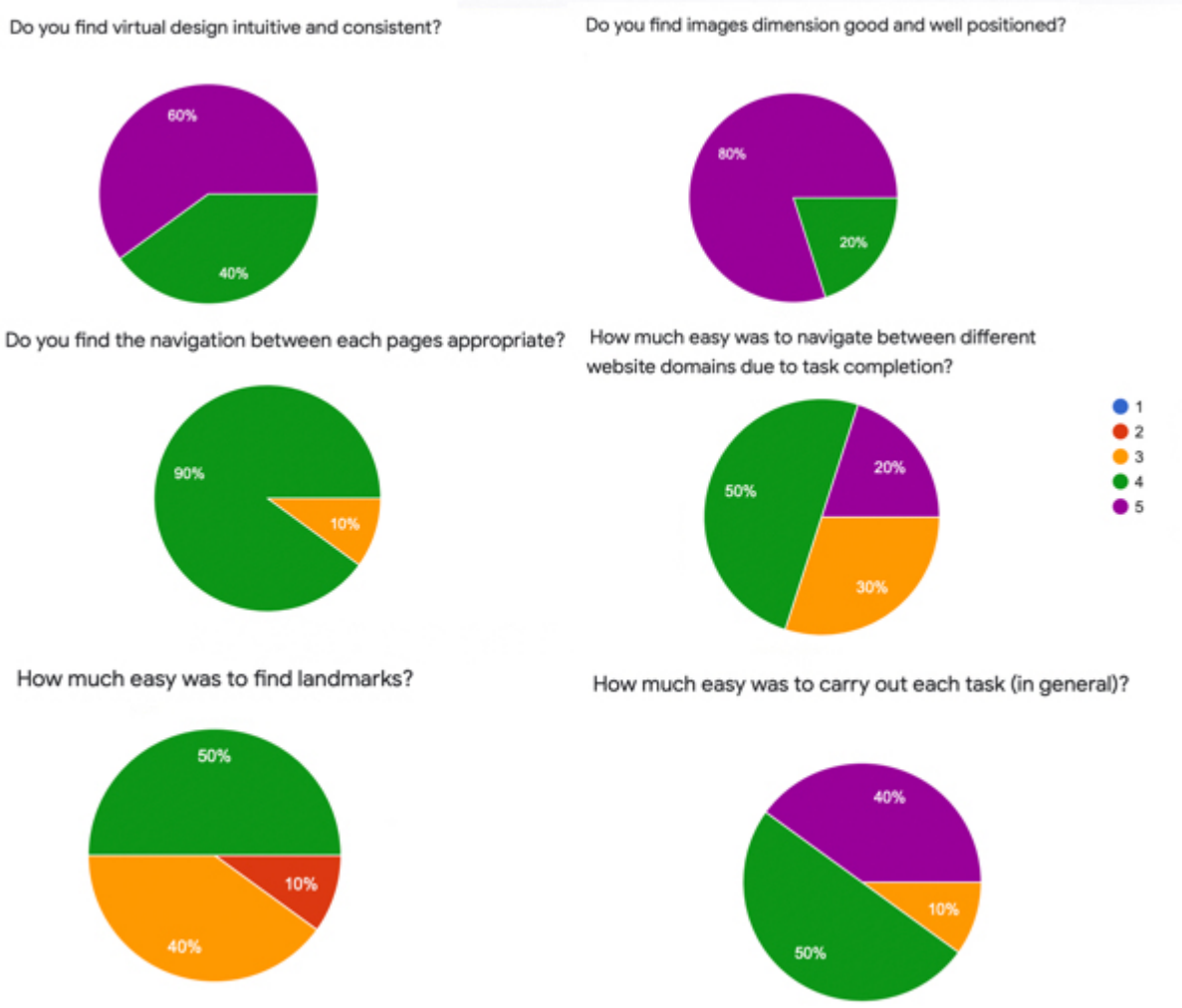
Table 7.2: Average results of Profile 2

### 7.1.3 Total Average

| Scenario | Task | Time Execution | Effectivness | Error | Satisfaction |
|---|---|---|---|---|---|
| 1 | 1 | 18.3 | 1 | 0 | 4.4 |
| 1 | 2 | 8.8 | 1 | 0 | 4.8 |
| 1 | 3 | 22.8 | 1 | 0.2 | 4.8 |
| 1 | 4 | 7.6 | 1 | 0 | 4.9 |
| 1 | 5 | 36.1 | 1 | 0 | 4.9 |
| 1 | 6 | 29.625 | 1 | 0.2 | 4 |
| 2 | 1 | 11.3 | 1 | 0 | 4.8 |
| 2 | 2 | 22.3 | 1 | 0 | 4.7 |
| 2 | 3 | 29.2 | 1 | 0.3 | 4.8 |
| 2 | 4 | 21.55 | 0.8 | 0.3 | 4.2 |
| 3 | 1 | 14.4 | 1 | 0 | 4.8 |
| 3 | 2 | 26.6 | 1 | 0 | 4.7 |
| 3 | 3 | 36.3 | 1 | 0 | 4.7 |

Table 7.3: Average results for Profiles 1+2

### 7.1.4 Survey results




### 7.1.5 Comment

As evidenced by the results obtained from the study carried out, the two tester profiles used for the study gave the expected results. The testers belonging to Profile 2, older and with a background skilled from the point of view of the IT sector, gave values of time and errors higher than the testers of profile 1 even if they managed enough to complete the tasks to which they were subjected and expressing high values of appreciation for the site, which demonstrates that, although the system is geared towards sectoral users, the minimalist design and

clarity of content displayed works well on a wide range of visitors.

# Chapter 8

# Conclusion

Regarding the first part of the *Inspection*, as this usability evaluation study has highlighted, the Moviri's website gives to users a quite good experience that could be easily improved by solving the found small issues. For what concern Navigation, the strength is given by the Structural and Group Navigation:

- ensure a consistent aspect between pages;
- give an intuitive way to navigate between contents;
- overcome all navigation problems related to links' miss between contents of a same; topic and structural problems. This aspect could be better managed by adding the possibility to go back to previous page (for example by including the followed path to reach each page); by adding links and letting users to move between similar contents without always accessing the header and by being more consistent in buttons layout and and visibility (for example by always showing only the one related to the selected season).

Content have taken the best score between the 4 groups because the website contains lots of information well organized and without visible issues. The only adjustments that could be done is that sometimes the layout was found a little too rough but with a small effort could make pages look tidier and more clear. The real Presentation weak point is given by the lack of consistency between the pages of different groups, first, and of the placeholders, not always consistent and that can be easily improved.
Regarding Nielsen's Heuristics the strenght point is the Efficiency of use, in fact we would like to say that the site is well done and ensures the user a good quality of the visit; the weak point, instead, is the visibility of the system status that is really lacking and demonstrates how much the developers have thought of a specialized user profile that has no problem finding himself in the various sections he wants to visit.

Regarding the second part of the study, that concerns the *User Testing*, we

have already discussed into the results section the issued encountered by our testers but as conclusion we can say that our testers appreciated the website in its structure, layout and graphical elements and that they didn't face big issues. An evidence that we found both in the testers coming from Profile 1 and 2 regards the difficulty in identifying the landmark for the *"Home"* section; as already underlined in the specific section of the system, this role is covered by *"Business Lines"* button but without this being specified in any way, which leaves the user perplexed at first. At the end, a suggestion that we can formulate by the analysis of all the data obtained by the study is that how as we had already seen, the web site can be easily consulted by a skilled user in the IT sector and becomes less and less easily visited by less experienced users for the complexity of the language that is used; we believe that these characteristics are predictable in a site that presents sectorial services and topics, designed for a well-defined user profile but some precautionsalready mentioned previously, such as the use of labels that clarify and anticipate the content of each section, could certainly make it usable to a much wider range of users. We encounter some difficulties in alligning our ways of reasoning over the analyzed aspects and also in getting the heuristics limits. We found this project kinda complex but in the same time interesting because it allowed us to understand in a clear way what has an impact over our sentiment as users and how we would like a website to be done.

# Appendix A

# Annex

The following tables are the ones from which has been computed each heuristics value.

| **Heuristic** | **Matteo** | **Gabriele** |
|---|---|---|
| Interaction Consistency | 5 | 4 |
| Group Navigation | 4 | 5 |
| Structural Navigation | 4 | 4 |
| Semantic Navigation | 4 | 3 |
| Landmarks | 3 | 4 |
| Information Overload | 5 | 4 |
| Text Layout | 4 | 4 |
| Interaction Placeholder-Semiotics | 4 | 4 |
| Interaction Placeholder-Consistency | 5 | 3 |
| Spatial Allocation | 4 | 4 |
| Consistency of Page Structure | 2 | 4 |