

Usability Evaluation Report

Jessica Corrias

jessica.corrias@mail.polimi.it

February 3, 2020

WEBSITE

<https://polimi-hyp-2019-10412442.herokuapp.com>

Index

1.	Abstract	3
2.	Inspection	
2.1.	Introduction	3
2.2.	Heuristics and scores used	3
2.3.	Heuristic evaluation form (example)	4
2.4.	Results	5
2.5.	Analysis	7
2.6.	Discussion of results	9
3.	User Testing	
3.1.	Introduction	10
3.2.	Design of the study	10
3.3.	How the data was collected	11
3.4.	Post testing questionnaire	11
3.5.	Results	12
3.6.	Analysis	14
3.7.	Discussion of results	15
4.	Conclusions and final remarks	16

Chapter 1

Abstract

This document contains the results of a short heuristic-based inspection of the website and a user testing, which consists of measuring the speed and ease with which end users with a consistent profile involved as testers are able to complete simple usage scenarios.

The objective of this document is to combine a systematic and in-depth analysis of the application by an expert and a task oriented analysis, made by "Doing things" with the application.

Chapter 2

Inspection

2.1 Introduction

For this section, an inspection sheet has been prepared and used by an expert evaluator, who analytically reviews the UX aspects of an application and verifies compliance with usability quality principles.

To collect the data, a form with all heuristics was used and organized by dimensions, where the evaluator can annotate the results of his own personal evaluation results and the scores of each heuristic with screenshots and comments.

Due to the presence of only a single evaluator in the project, only one evaluation form is shown.

2.2 Heuristics and scores used

Each question was indexed with the first letter of the category and a number to facilitate data analysis (e.g. H1_Interaction consistency). In particular, the heuristics chosen for the test are:

NAVIGATION

- **H1_Interaction consistency:** do pages of the same type have the same links and interaction capability?
- **H2_Group navigation:** is it easy to navigate among group members and from an group introductory page to group members (and the other way around)?
- **H3_Structural Navigation:** is it easy to navigate among the semantic components of a Topic?
- **H4_Semantic Navigation:** is it easy to navigate from a Topic to a related one?
- **H5_Landmarks:** are landmarks useful to reach the key parts of the web site?

CONTENT

- **H6_Information overload:** is the information in a page too much/too little?

LAYOUT

- **H7_Text layout:** is the text readable? Is the font size appropriate?
- **H8_Interaction placeholder:** 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?
- **H9_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?
- **H10_Consistency of Page Structure:** do pages of the same type have the same layout (same visual properties of each component and similar lay-out organization of the various elements?)

The possible evaluations of each question are on a linear scale from 0 to 5, where the value 0 represents the minimum evaluation (NOT satisfied) and the value 5 represents the maximum evaluation (FULLY satisfied). In case the heuristics was not applicable, it was possible to insert the N/A

2.3 Heuristics evaluation form (example)

CATEGORY	HEURISTICS	SCORE	BRIEF COMMENT
Navigation	H1_Interaction consistency		
Navigation	H2_Group navigation		
Navigation	H3_Structural Navigation		
Navigation	H4_Semantic Navigation		
Navigation	H5_Landmarks		
Content	H6_Information overload		
Layout	H7_Text Layout		
Layout	H8_Interaction placeholder		
Layout	H9_Spatial allocation		
Layout	H10_Consistency of a page structure		

SCORES:

N/A: heuristics not applicable - Other scores range from 0 to 5

0 = the heuristic is NOT satisfied; severe violations have been detected

5= the heuristic is FULLY satisfied; no severe violations has been detected

2.4 Results

A summary version of the evaluation is given here. The more detailed version with comments and screenshots is given in the annexes.

CATEGORY	HEURISTICS	SCORE	BRIEF COMMENT
Navigation	H1_Interaction consistency	4	Yes, thaks to a very similar and clear layout to read
Navigation	H2_Group navigation	5	Easy thanks to clear links
Navigation	H3_Structural Navigation	4	
Navigation	H4_Semantic Navigation	4	Easy thanks again to the menus and links inside the text
Navigation	H5_Landmarks	N/A	No lateral landmark is set - links only in the navbar
Content	H6_Information overload	5	Pages have the minimum necessary content, designed for possible optimization with SEO and better navigability from mobile
Layout	H7_Text Layout	3	font size too small, need a fix
Layout	H8_Interaction placeholder	4	
Layout	H9_Spatial allocation	5	All the images are really close to the description. Fully satisfied
Layout	H10_Consistency of a page structure	5	Yes, all the pages are similar because the structure is the same and the content is loaded dinamically

Some commented screenshot:

REGENORCHESTER XII



Date

19/9/2019

Price

10\$

[+ Add to Cart](#)

Abstract

Regenorchester is a project by Austrian musician, Franz Hautzinger which began in London in the 90s. Every version of the "orchestra of the rain" forges a different line-up blending different genres such as jazz, improvisation, rock, electronic, and mixing digital and analogue. The project is named after the rain in London that during the first concert was coming down incessantly. The only factor that remains the same is the presence of Hautzinger himself, who in Transart will perform with the phenomenal guitarist and DJ, Otomo Yoshihide, and the laptop poet, Christian Fennesz, as well as the navigated bassist, Luc Ex, and lastly the Australian percussionist, Tony Buck, a member of "The Necks". An incredibly creative combo in the field of experimental music, capable of surprising and going beyond the boundaries of the art of sound.

Factsheet

· Franz Hautzinger, Tp + Quartertone Tp · Christian Fennesz, G + Electronics · Otomo Yoshihide, G + Turntables · Luc Ex, E-B · Tony Buck, Ds + Perc

Performed by:



Speak Percussion

[Read More](#)

Discussed in:

[HOPE: THE BIRTH OF EUROPE](#)

In the same day:

[ALL THE GOOD](#)

ALL THE GOOD



Date

19/9/2019

Price

20.99\$

[+ Add to Cart](#)

Abstract

All the good tells a story about loss and hope. A love story at a time in which Europe is sacrificing its values and a large group of people are succumbing to hate and incomprehension. The story of a family of artists with their everyday cares and the omnipresent death, which mercilessly imposes itself both in the seclusion of their home and in the outside world. In 2014 Jan Lauwers met the Israeli elite soldier and war veteran Elik Niv who, following a serious accident and a long rehabilitation process, became a professional dancer. They had long discussions about his military operations and his development as a dancer in the safely subsidised world of the living arts in Germany. It was during these conversations that the bombs exploded at Zaventem airport and Maalbeek metro station.

Factsheet

· Jan Lauwers, Text, direction, set · Maarten Seghers, Music · Lot Lemm, Costumes · Elke Janssens, Dramaturgy · Ken Hioco, Technical Director, Lighting Design, set · Marjolein Demey, Production Management

Performed by:



Needcompany

[Read More](#)


Franz Hautzinger

[Read More](#)

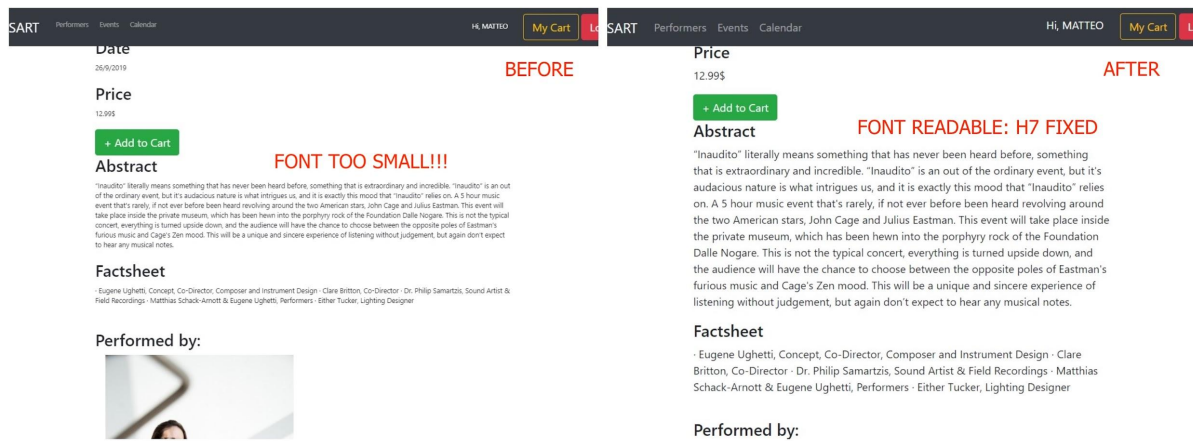
Discussed in:

[A DIVE INTO THE SEA THAT CHANGES](#)

In the same day:

[REGENORCHESTER XII](#)

H1: same link and interaction capability + H7: readable and appropriate



2.5 Analysis

Once the form was completed, the data was collected in a spreadsheet to create four histogram.

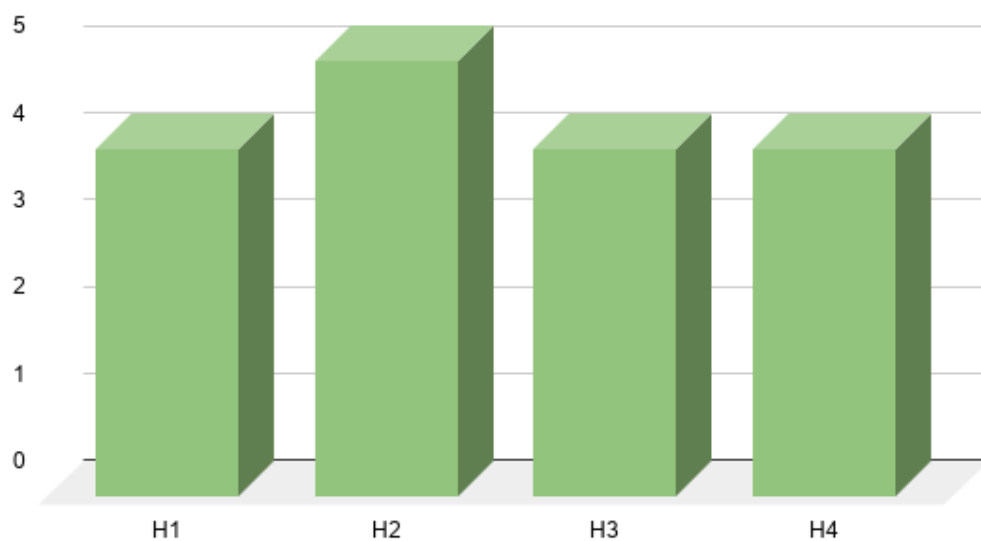
On the x-axis, there are the individual heuristic with the abbreviated notation, while on the y-axis there are the votes divided by heuristic.

The data were first grouped by category (Navigation, Layout and Content) and then the results were analysed as a whole.

Navigation Heuristics

Heuristic evaluation form - NAVIGATION HEURISTICS

MEAN VALUE FOR NAVIGATION HEURISTICS: 4,25

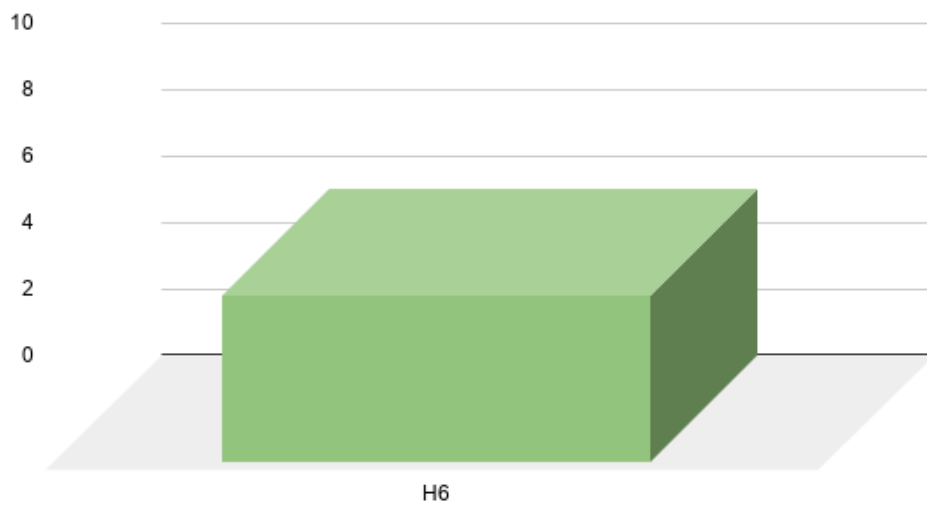


The heuristic H5 was not considered in the analysis because the landmark was not set in the website. Considering that the maximum score for the total of the navigation heuristics is 20 points and that the total score obtained by adding the scores of the individual heuristic is 17, the evaluation is estimated at around 85%: the evaluation of navigation heuristic is very positive.

Content Heuristics

Heuristic evaluation form - CONTENT HEURISTICS

MEAN VALUE FOR CONTENT HEURISTICS: 5

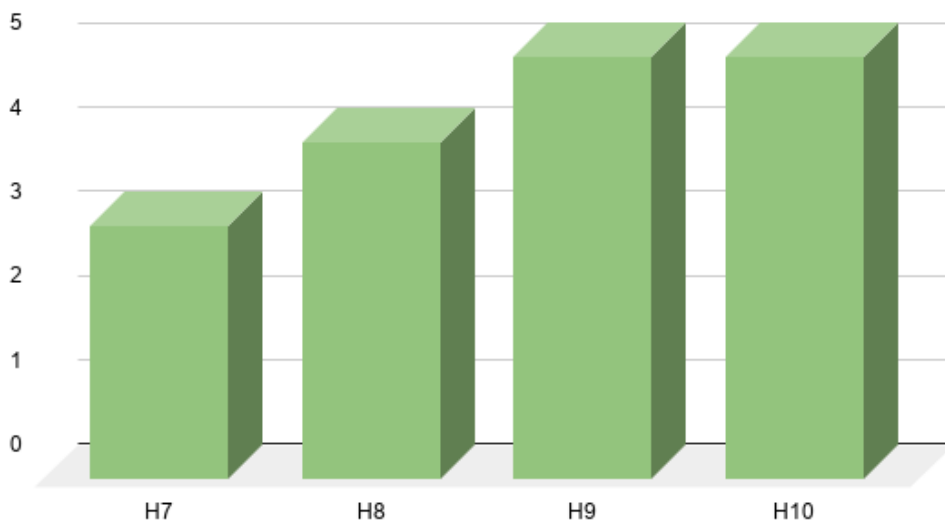


This heuristics got maximum score. Although the graph could be omitted, it has been attached to show a visual representation of the result.

Layout Heuristics

Heuristic evaluation form - LAYOUT HEURISTICS

MEAN VALUE FOR LAYOUT HEURISTICS: 4,25



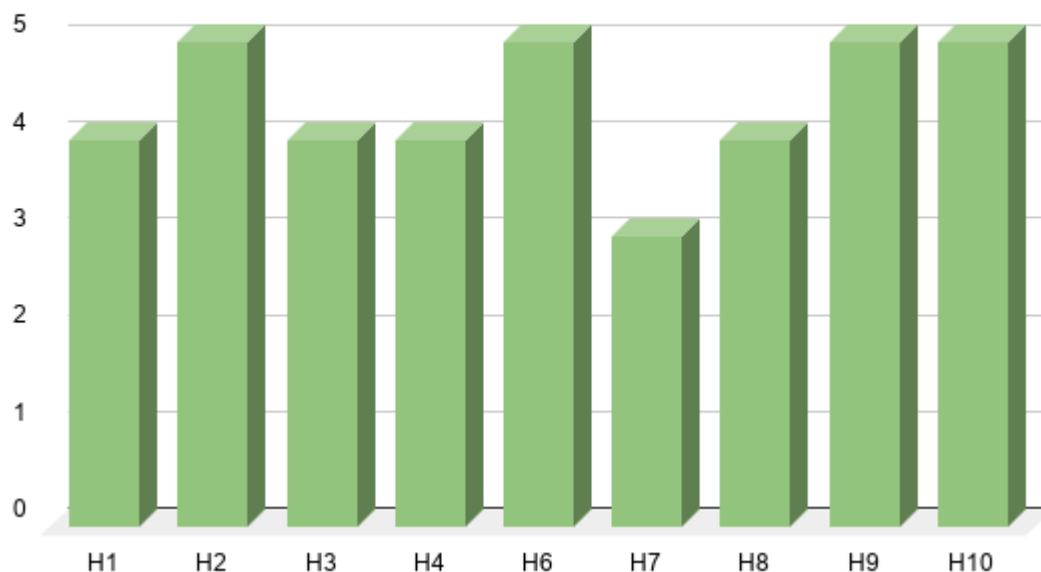
Considering that the maximum score for the total of the layout heuristics is 20 points, and that the total score obtained by adding the scores of the individual heuristic is 17 of , the evaluation is estimated to be around 85%: the evaluation of navigation heuristic is positive.

However, the lowest score of the evaluation is highlighted: as can be seen from the comment to the heuristic H7_Text layout, the font is too small in the desktop part. It would therefore be useful to plan a redesign activity, to improve the rating of this heuristic.

All Heuristics

Heuristic evaluation form - ALL HEURISTICS

MEAN VALUE FOR ALL HEURISTICS: 4,33



This graph represents an overall view of the heuristic evaluation analysis, containing all the heuristic considered during the test. The grades are quite homogeneous: one evaluation with score 3, four evaluations with score 4 and four evaluations with score 5. The average score for all the heuristics is 4.3, a very encouraging result that shows the absence of serious deficiencies in the website.

In particular, considering that the maximum score for the total of the questions is 45 points and that the total score obtained by adding the scores of the individual heuristics is 43 of , the evaluation is estimated at around 86,7%: the heuristics evaluation is very positive.

2.6 Discussion of results

The results showed that the evaluator was able to complete the inspection sheet without any particular problems. In general the navigation of the site is easy and smooth, simplified by excellent link and content management.

In addition, the layout has been studied in detail and is designed to be user-friendly (for users with little or no computer knowledge). The votes recorded highlight the correct design of the product: with some improvements (such as font enlargement), the product would be ready to be launched on the market.

Chapter 3

User Testing

3.1 Introduction

This section presents the results of the User Testing applied on the website, in order to evaluate the effectiveness of the structure and its usability for end users. The test consists in measuring the speed and the easiness with which testers are able to complete simple use cases.

The objective of the test is to verify whether the website's structure doesn't make troubles to the users in their navigation. Thanks to the results of the test, it is possible to identify structural and/or conceptual problems of the website, allowing to make appropriate adjustments in order to produce a final product more usable.

3.2 Design of the study

Structure

This test has been structured as a Task-Based, i.e. a number of objectives have been elaborated and delivered to each user with the task of being completed, if possible, without the help of the developer.

Recruiting Users

For the execution of the User Testing, a sample of users was selected on the basis of defined criteria: the task was to do simple searches within the website in an environment optimized for testing, isolated from external distractions and monitored by the project developer. In this way, all the problems due to external factors such as connection speed and quality of the device used were avoided.

In particular, the sample was selected among the students of the Politecnico di Milano between 20 and 25 years and it is composed of 4 users interested in summer festivals.

Selected Tasks

Since the end user of the website could be a potential buyer, you chose to select tasks that simulate a buying process.

Below are the tasks developed for the test:

TASK 1: Search for information about the author Franz Hautzinger

TASK 2: Find out how the shipment of multiple items is handled

TASK 3: Make a user registration

TASK 4: Buy a ticket of your choice using the user "matteo@gmail.com" with password "provami"

TASK 5: Check what events there are in a specific date

TASK 6: Find info about the festival

3.3 How the data was collected

How

Thanks to the usage of Google Form, it was possible to collect user feedback using a questionnaire and then analyze the results through tables and diagrams in order to improve the product. Subsequently, changes were planned on the basis of the feedback received.

Inside the folder, there are the results of the individual tests and the complete and detailed analysis of the results.

When / Where

Testing sessions were simulated between 18-20 January: in this way, users were able to test a working version of the website.

Testing sessions were simulated in a private room of a gaming cafe: it was considered a suitable place for the purpose thanks to the availability of a high-speed connection and the availability of advanced and different devices.

Tools

Tools used during the tests were latest generation devices in good conditions. This allowed users to carry out the test without problems related to obsolete technologies.

Evaluation Focus

The test was carried out with the aim of understanding how the target audience would interact with the product at the current stage of development, focusing the attention of the study on possible structural difficulties and content organization.

3.4 Post Testing questionnaire

After the test, users were asked to fill in a questionnaire using Google Forms (available at: <https://forms.gle/Z5gcXXy4EFK58Vwn9>) which contains specific questions about the structure of the site and its contents.

Each question has been indexed with a letter and a number to facilitate data analysis (e.g. D1_Question). This, together with the user registrations during the test, contributed to further improve the feedback received.

The possible evaluations of each question are on a linear scale from 1 to 5 where the value 1 represents the minimum evaluation (Strongly disagree) and value 5 represents the maximum valuation (I completely agree).

To simplify the completion and understanding of the questionnaire, it was decided to use the Italian language. The individual results of the other users are present in the folder "Questionnaire".

3.4 Results

User 1

Here are the results of the user testing. The test was carried out by a laptop web browser

Results are expressed in M:S format (Minute:Second)

TASK	TASK COMPLETION	TIME ELAPSED	COMMENTS
TASK 1	Completed	0:30	
TASK 2	Completed	0:45	Back to Homepage
TASK 3	Completed	1:17	Contact us not conform
TASK 4	Completed	1:20	
TASK 5	Completed	0:20	Using Navbar
TASK 6	Completed	0:08	

User 2

Here are the results of the user testing. The test was carried out by a mobile web browser.

Results are expressed in M:S format (Minute:Second)

TASK	TASK COMPLETION	TIME ELAPSED	COMMENTS
TASK 1	Completed	0:50	Scrolling home
TASK 2	Completed	0:10	Scrolling to footer
TASK 3	Completed	1:01	
TASK 4	Completed	1:47	Not found button confirm
TASK 5	Completed	0:10	Using Navbar
TASK 6	Completed	0:20	Scrolling to footer

User 3

Here are the results of the user testing. The test was carried out by a ipad web browser.

Results are expressed in M:S format (Minute:Second)

TASK	TASK COMPLETION	TIME ELAPSED	COMMENTS
TASK 1	Completed	0:37	
TASK 2	Completed	1:07	Scrolling home & navbar
TASK 3	Completed	0:45	
TASK 4	Completed	0:57	Easy
TASK 5	Completed	0:12	
TASK 6	Completed	0:15	

User 4

Here are the results of the user testing. The test was carried out by a mobile web browser

Results are expressed in M:S format (Minute:Second)

TASK	TASK COMPLETION	TIME ELAPSED	COMMENTS
TASK 1	Completed	0:23	
TASK 2	Completed	0:35	Back to home
TASK 3	Completed	1:20	Link registration too small
TASK 4	Completed	1:19	
TASK 5	Completed	0:15	Navbar
TASK 6	Completed	0:17	

3.6 Analysis

Thanks to the features of Google Forms, it was possible to extract the results easily in a spreadsheet. The columns represent the individual abbreviated questions with the chosen notation, while the rows represent the votes divided by user.

The individual averages of the ratings are shown in the final row of the table.

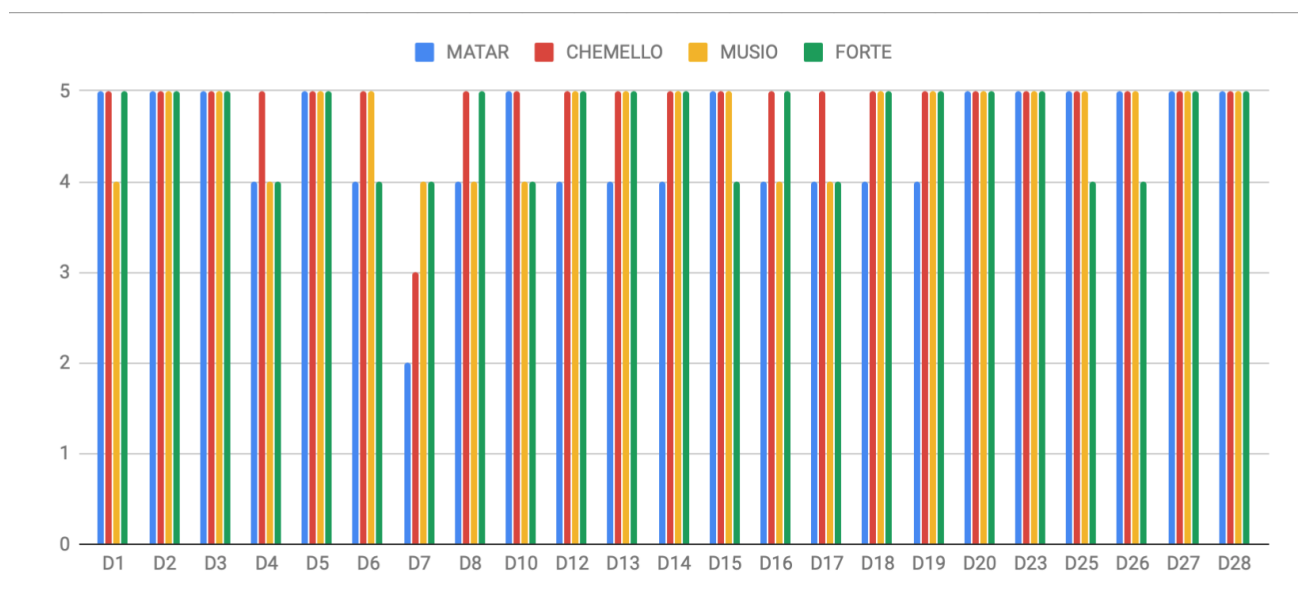
COGNOME	D1	D2	D3	D4	D5	D6	D7	D8	D10	D12	D13	D14	D15	D16	D17	D18	D19	D20	D23	D25	D26	D27	D28	D9	D11	D21	D22	D24
MATAR	5	5	5	4	5	4	2	4	5	4	4	4	5	4	4	4	4	5	5	5	5	5	5	2	2	2	3	1
CHEMELLO	5	5	5	5	5	5	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	1	1	1	1	1
MUSIO	4	5	5	4	5	5	4	4	4	5	5	5	5	4	4	5	5	5	5	5	5	5	5	1	1	2	1	1
FORTE	5	5	5	4	5	4	4	5	4	5	5	5	4	5	4	5	5	5	5	4	4	5	5	2	1	1	1	1
MEDIA		5	5	4,25	5	4,5	3,25	4,5	4,5	4,75	4,75	4,75	4,75	4,5	4,25	4,75	4,75	5	5	4,75	4,75	5	5	1,5	1,25	1,5	1,5	1

To evaluate the results correctly, two categories must be distinguished:

- Positive questions, which highlight the merits of the site (highlighted in red)
- Negative questions, highlighting site problems (highlighted in green)

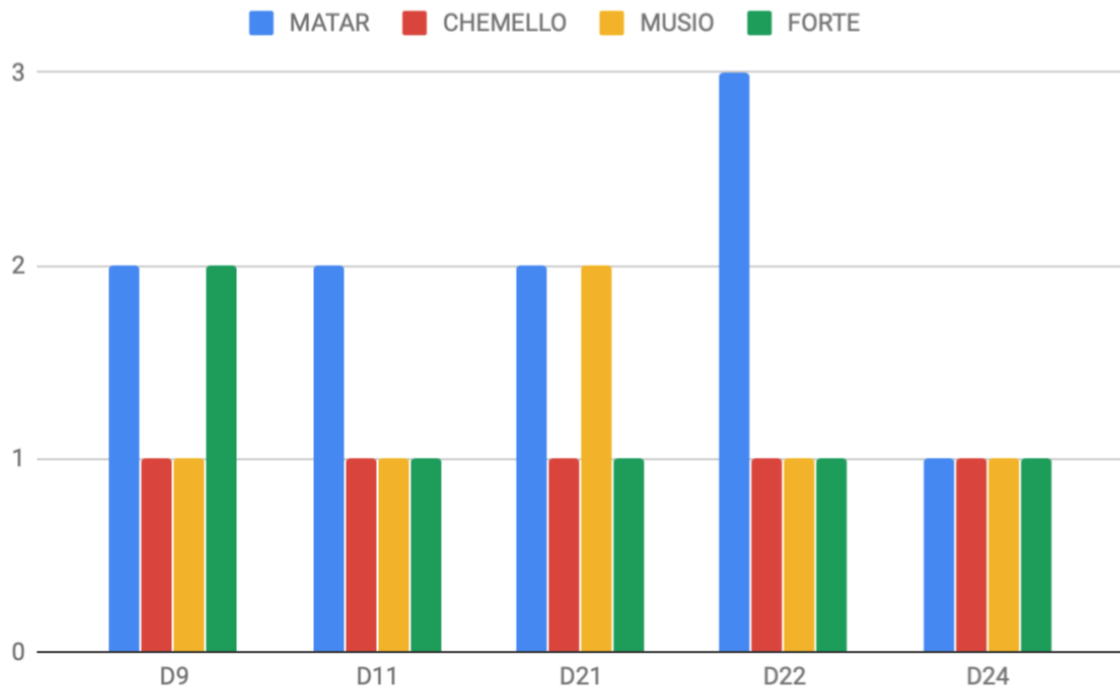
In addition to the numerical analyses, two graphs are also presented here which visually represent the table by means of a low diagram divided by individual question

Results of positive questions



Considering that the maximum score for the four users' total positive questions is 460 points and the total score achieved by adding up the individual users' scores is 430, the evaluation is estimated at around 93.47%: the site has been judged positively by the users.

Results of negative questions



Considering instead the maximum score for the total negative questions of the four users is 100 points and the total reached by adding the scores of individual users is 25, the evaluation is estimated at around 27%: with low result of negative questions, the site was rated with a low number of problems.

3.7 Discussions of results

The results showed that most users managed to complete most of the tasks without requiring assistance from us observers, highlighting an overall structural clarity of the site.

From the visual and verbal reactions during the tests, it was surprising to note that most users selected the shortest route to complete the assigned tasks, relying in particular on the upper navbar which was a key method of navigation within the site.

The times recorded are an indicator of the ease of use of the product: the average execution time was lower than expected since the testers easily became familiar with the site.

Chapter 4

Conclusions and final remarks

The overall assessments of the testers and inspectors were found to be consistent with the overall assessment of the website.

Analyzing the results, they highlight some positive aspects of the site: essential content, easy navigation, intuitive structure of the site. These features made it easier to carry out the tests: inspection and user testing both provided good results for the website, although with some aspects to point out and a less than optimal scores.

Proposals can also be made for redesigning some sections of the site: for example increase the font size in the desktop format of the site and use more dynamic youthful fonts and images to better reflect the soul of the festival.