



REBOOT: REdesigning for the usaBility imprOvement of Online Therapy

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Introduction



- Objective
- Background
- Target customers
- The process
- The deliverables

1. Ethnographic **Analysis**



1.1 Segmentation of the target audience

We decided to focus on the age group 18-29 and address their absence from a platform like SIPO offering free or paid services, from which they could benefit.

- We opted for the specific age group because:
- According to ISTAT the age-group 15-44 is the one most affected by depression
- A Repubblica survey (Ferro, 2020) found that the lockdown had a negative impact on the mental health of mostly the ages 18-29 and 30-44.
- According to The Wall Street Journal (Drexler, 2019) its members are open to the idea of using the services of a psychologist.



1.2 User research

1.2.1 Surveys

The results of a [study](#) conducted on the current users of SIPO:

- online sessions were chosen mostly for urgent support, but also for the practical matter of convenience
- users were highly motivated to continue their online therapy sessions

1.2 User research



Survey: opinion on the value of therapy, traditional or online, willingness to seek professional help, state of mental health and knowledge of SIPO and its services.

Results:

- All participants agreed that therapy can help one resolve mental health issues
- The majority has considered seeing a therapist
- half admitted that Covid-19 has affected their mental health
- consider online therapy to be less or equally efficient as traditional therapy
- they would try it mostly during an emergency like Covid-19 or for the purpose of convenience
- they find online therapy to be too impersonal
- most had never heard of SIPO before



1.2.1 Use research

1.2.2 Interview

Interview: delve into the mentality of our target users as regards mental health and therapy

Results:

- Most subjects reported that they recognize the value of therapy and would follow or have followed sessions
- Most felt that Covid-19 has affected their mental health, but perhaps not to a point that they would seek professional help
- All of them expressed reservations regarding online therapy: unprofessional, impersonal, awkward
- Some expressed concerns about privacy: someone else might be listening or even recording what they say
- Some would try following online sessions if they did not have another choice or because it appeals more to their timid nature



1.2 User research

1.2.3 Task analysis

We identified the main tasks a user of the site may be interested in and the steps required to achieve them:

1. Booking an appointment with a psychologist
2. Looking for articles on mental health issues
3. Searching for information about a disorder
4. Search information about the different types of therapy
5. Looking for a psychologist expert in a particular issue
6. Complete self-diagnosis test about a specific problem

Taking into consideration the nature of the site, it is important to address the information overload and the number of steps required to complete a task, where applicable. In general, tasks were not found hard to complete, but there is room for improvement as regards efficiency and intuitiveness.

2. Assessment of existing **Resources**



[RICHIEDI AIUTO AD UNO PSICOLOGO](#) [ACCEDI](#) [FORMAZIONE PSICOLOGI](#) [DIVENTA PSICOLOGO SIPO](#)

[TROVA PSICOLOGO](#) [PER LE AZIENDE](#) [LO PSICOLOGO RISPONDE](#) [SPORTELLO CORONAVIRUS](#) [ARTICOLI](#) [TEST](#) 



IL SUPPORTO PSICOLOGICO DI CUI HAI BISOGNO

2.1 Expert usability review

The expert usability review is an objective analysis of the system that does not involve the users, but is based instead on a series of reliable guidelines concerned with usability and UX issues.

Our analysis involved the following steps:



Choice of the guidelines



First exploration of the system



Direct analysis: system vs guidelines



Reverse analysis: guidelines vs system



2.1.1 Choice of guidelines

The 247 web usability guidelines by Userfocus

- **Home page usability:** 20 guidelines to evaluate the usability of home pages.
- **Task orientation:** 44 guidelines to evaluate how well a website supports the users tasks.
- **Navigation and IA:** 29 guidelines to evaluate navigation and information architecture.
- **Forms and data entry:** 23 guidelines to evaluate forms and data entry.
- **Trust and credibility:** 13 guidelines to evaluate trust and credibility.
- **Writing and content quality:** 23 guidelines to evaluate writing and content quality.
- **Page layout and visual design:** 38 guidelines to evaluate page layout and visual design.
- **Search usability:** 20 guidelines to evaluate search.
- **Help, feedback and error tolerance:** 37 guidelines to evaluate help, feedback and error tolerance.



2.1.2 First inspection of the system

The system's inspection allowed us to identify the services offered:

- Book an appointment with a psychologist (available through 2 different links)
- Login, but only for psychologists
- Become a SIPO psychologist
- FAQ page
- Services for companies
- Asking questions to psychologists and reading users' answers
- Coronavirus help desk
- Articles
- Self-diagnosis tests
- Facebook page link
- Read psychologists' profile and biography, plus download their CV
- Read patients' reviews
- Read up-to-date news concerning today's most discussed subject matters
- See the payment methods



2.1.2 First inspection of the system (2)

We also learned that the target user is very wide, but it is specifically related to users having at least a basic understanding of technology, being it an online service.

Moreover, the first inspection highlighted even some technical problems:

- Broken links
- Bad color choices
- Excessive and redundant text
- Important information such as "Chi siamo" missing
- Slow-to-load pages, website often down

2.1.3 Direct analysis

System vs guidelines



Page	Violated guidelines
Homepage	2, 11, 13, 18, 19, 25, 57, 67, 78, 85, 136, 155, 173, 178, 180, 184
Trova psicologo	11, 57, 67, 78, 136, 155, 178, 180, 184, 212, 216, 231, 247
Sportello coronavirus	57, 78, 133, 141, 178, 247
Lo psicologo risponde	11, 57, 67, 78, 133, 136, 141, 155, 184
Articoli	11, 25, 57, 67, 78, 85, 133, 136, 141, 155, 178, 180, 184
Test	11, 25, 57, 67, 75, 78, 85, 131, 136, 141, 155, 172, 173, 178, 180, 183, 184, 185, 216, 226, 231, 232, 247



2.1.4 Reverse analysis

Guidelines vs system

Guideline	Violation page
1	Homepage
11	Homepage; Trova psicologo; Lo psicologo risponde; Test
...	...

The complete list can be seen [in our review paper](#).

Interestingly enough, we noticed that the guidelines number 57 and 78 have been violated in all web pages of SIPO website

Analysis of the guidelines



Summary of results

	Raw score	# Questions	# Answers	Score
Home Page	2	20	14	57%
Task Orientation	10	44	19	76%
Navigation & IA	6	29	17	68%
Forms & Data Entry	6	23	8	88%
Trust & Credibility	6	13	8	88%
Writing & Content Quality	-1	23	11	45%
Page Layout & Visual Design	0	38	24	50%
Search	0	20	0	
Help, Feedback & Error Tolerance	-2	37	18	44%
Overall score		247	119	65%

All the scores we assigned to the specific guidelines set can be seen [here](#).

2.2 User testing



2.2.1 Definition of the testing protocol



2.2.2 Analysis of subjective and objective data



2.2.3 Urgency curve



2.2.1 Definition of the testing protocol

- **Testing method:** Guerrilla testing (or discount testing)
- **List of tasks:**
 - a. Book an appointment with a psychologist
 - b. Look for articles about other people with the same problem as them
 - c. Search for information about their problem (example with stress)
 - d. Search for different types of therapy (support groups vs personal therapy)
 - e. Look for a psychologist who is expert on a specific disease
 - f. Find self test about a specific problem
 - g. Find the privacy policy for the management of data
- **Number of tests:** three
- **Number of subjects:** three, belonging to our target users
- **Testing methodology:** thinking aloud



Description of expected results

- Excessive and redundant written contents
- Too much distracting information
- Not always appropriate image choices
- The color of the text makes reading difficult
- Overused caps lock slows reading

Tests summary



- **Alessandro:** 24 years old, bachelor's degree in Languages and Cultures for Tourism and International Commerce, currently looking for a job. He is passionate about cars and travelling. He has a basic knowledge of the internet and technology.
- **Elena:** 25 years old, bachelor's degree in philosophy, she is completing her masters degree. Works as a librarian part time.
- **Loris:** 24 years old, works as a car seller. He is accustomed to using technology daily, both for professional reasons but also during his free time.



2.2.2 Analysis of subjective and objective data

- **Task-completion rate:** 85%
 - **Error-free rate:** 72%
-
- All users complained of the excessive amount of text
 - Some users complained of the absence of a search tool
 - All users complained of the unclear dropdown menu of "Trova psicologo" section
 - All users made at least one mistake when doing task 4
 - All users had no problems in finding the privacy policy

The image shows a search bar with two dropdown menus and a search button. The first dropdown menu contains the text "Tutti" and has a downward arrow. The second dropdown menu also contains the text "Tutti" and has a downward arrow. To the right of the dropdown menus is an orange button with the text "CERCA" in white capital letters.

Loris: 65
Alessandro: 95
Elena: 55

SUS average score:
71%

[Our results table](#)

2.2.3 Urgency curve



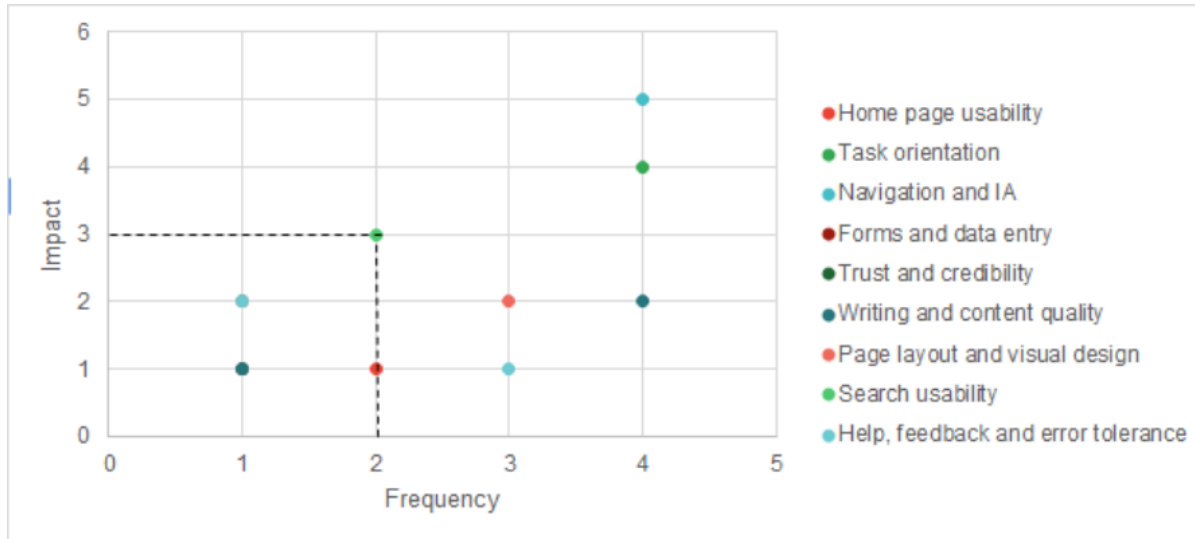
We took into consideration the factors of frequency, i.e. the number of users affected by a specific issue, and impact, i.e. the level of severity of the issue.

- The impact is measured on Nielsen's severity scale, which ranges from 0 to 4; we also took into consideration our evaluation during the expert usability review
- The frequency has a max score of 4, if we consider our team as 1 user

Overall, issues related to Help, navigation, task orientation and the home page appear to be in need of immediate intervention.

- Unclear menu options, misleading navigation, lack of correspondence between menu items and page items and the absence of the search function had an impact on all or most users
- The aforementioned issues were identified as such both during the user test and the usability review.

2.2.3 Urgency curve



3. Feasibility **Study**



3.1 Context of use

Users:

- Age group: 18-29
- Speak Italian
- Comfortable with technology
- Positive attitude toward therapy

Constraints:

- Access to technology
- Language
- Financial security
- Feeling security (while using the service)

Identification of tasks:

- Finding information about different issues
- Reading articles written by experts
- Booking appointments
- Asking questions
- Completing self-tests

3.2 Personas



Creation of 6 personas:

- 3 personas are representatives of the target audience
- 2 personas who would benefit from the addition of extra features
- A non-user persona
- Each persona has a set of different characteristics, motivations and personal background.
- All personas are inserted into a context
- 5 Scenarios were created for our personas

3.2.1 Ettore Padovesi (1)



Goals

- Wants to feel free from anxiety due to COVID situation
- Wants someone to talk to about what he feels
- Wants someone to reassure him

Frustrations

- He hates when a website is slow or not intuitive, as he is used to doing everything right away
- He does not like to talk about him a lot

Age: 22

Work: Student

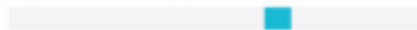
Family: Used to live with grandmother (84) and mother (60)

Location: Florence

Character: Very loyal to his friends, very determined about his objectives

Attitudes

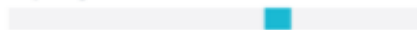
Open to therapy



Open to online



Equally efficient



Motivation

Get help soon



Convenience: everyone has to stay at home



Busy time schedule



Talk to a professional



Spare money



Preferred Devices

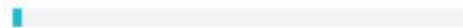
Computer



Smartphone



Tablet



3.2.1 Ettore Padovesi (2)



Bio

Ettore used to be a very lively guy during the school age but when he started university he calmed down. Now, he wants everything to be well-organized. He really cares about his study and his friends. When he is doing something he puts all of himself and gets very stressed when things do not go as he expected. He is very sincere with his family and friends, and he is always willing to help. Despite his interest in science he does not like traveling or exploring the world as he can see and learn everything he wants on internet. Ettore is passionate about science, cars and music. He always likes to discover something new therefore when one of his friends introduces anything to him he wants to know it in depth. Every day Ettore goes to class. He lives in a university city and shares a house with 3 other students. Usually he gets up late because he likes being awake at night and is often late at class. Nevertheless, he sits on the front to take part in the class better. Usually, he asks questions or says his opinion. His classes are taught only for the morning therefore he has every afternoon free. Most of the times he stays outside with his classmates and likes to get to know new people who, sometimes, take part in the group. Anyway, when an exam gets close, he does not stay outside too much and goes home to study. He does not usually study for the night because he does not like it: either he watches a movie. or he out with his friends. The outbreak of COVID-19 pandemic dramatically changes his routine and his character.



3.3.1 Scenario

Ettore is worried about covid-19 outbreak

The coronavirus pandemic started some weeks ago. No one is understanding what is really going on. Schools closed, universities closed, shops closed. Ettore is in his room reading a reliable online newspaper to get informed about the situation. He knows that he will have to spend a lot of time far from his hometown and his family. As a matter of fact, regions closed the borders and he is stuck there. At least, one of his roommates is experiencing the same situation, otherwise he would be alone in the apartment. At the beginning, Ettore was not excessively bothered about the situation: he had to study and he thought that until he has the internet he has also had everything he needs to survive. Ettore has always thought of himself as a very stable person and never took into consideration the idea of talking to a psychologist. Nevertheless, the COVID situation is worrying him. Both his mother and his grandmother are not as young as they used to be and, being Ettore a student of biotechnology, he knows very well how viruses can spread. Moreover, after the first weeks at home, he starts to feel very lonely, despite his roommate living with him. The quarantine is being a very tough period. It is spring, but he does not have a garden in the apartment where he is stuck, so he cannot even enjoy the sun: no one can leave their home, the motto is “stay at home”. Every day resembles the preceding one: Ettore wakes up, has breakfast and then spends hours in front of his PC, studying, reading or playing just to pass his time. He calls his family every day, as he is very worried about their health. He realizes something is wrong with him. He is very anxious, and spends too much time worrying about everything: he does not know what to do, he is very afraid even when he goes to the supermarket. [...]

3.2.2 Marco Ricci (1)



Age: 27

Work: Designer

Location: Modena

Character: Ambitious,
sociable, hard-working

Goals

- Wants to feel better and enjoy life again
- Wants to get help from a psychologist

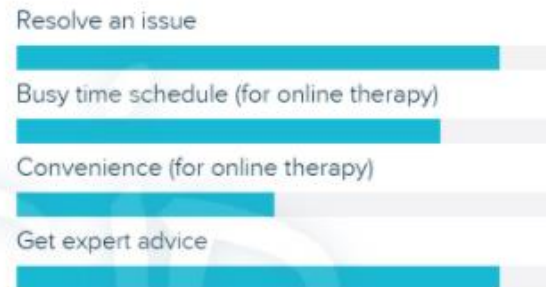
Frustrations

- Has a busy schedule and has no time for therapy
- Has reservations about online therapy, which would have been a convenient option for him

Attitudes



Motivation



Preferred Devices





3.2.2 Marco Ricci (2)

Bio

Marco is 27 years old and lives in Modena, Italy. After graduating from the University of Bologna, he started working at a small software engineering company as a designer. He loves his Job, he has good friends and enjoys spending time with them. He found a great apartment at the centre of the city. He has a great life. Yet, lately it just doesn't feel like it. He feels tired and unmotivated all the time and he would like to speak to an expert about It, but his schedule doesn't allow regular visits to a psychologist's office.



3.3.2 Scenario

Marco faces a mental health issue

Dragging his feet, Marco entered his small apartment feeling the weight of another long day on his shoulders. He took off his shoes and lay on the bed, staring at the ceiling. He had everything he ever wanted a designer job at a small software engineering company with a good salary, good friends, a pretty apartment at the city centre. Yet lately, his favorite time of the day was when he returned home so he could lie on the bed. He didn't remember the last time he felt good about anything. He knew it wasn't normal not replying to his friends' messages and avoiding to go out unless it was necessary. He just didn't have the energy to do any of the things he used to love. Some friends noticed his strange behavior and tried to reach out to him, but it wasn't what he needed. He wasn't sure what he needed -he just wanted to rest. Someone suggested therapy and he toyed with the idea, but he didn't have the time for it. He grabbed his phone from the bedside table and googled his symptoms. The SIPO site came up as one of the results and he clicked on it. Online therapy? He never heard of it before. He read the information on the homepage sceptical and scanned the page. He read on some disorders that sounded relevant before he opened the part about depression. He went through the description and felt his stomach twist. He recognised many of the symptoms from the list. He reached the end of the page and anxiously completed the self-diagnosis test. He knew what the results would be. So what now? [\[...\]](#)

4. Design **Proposal**



4.1 Information architecture

- We adopted a top-down approach in our effort to propose a new information architecture. This approach involves creating an overview of the system and gradually refining its components.
- The content of the SIPO site can be divided into two categories: the content meant for the general public, and the one addressed to professionals. We group the information meant for professionals under two sections titled 'Per gli psicologi' and 'Per le aziende', which are placed on the top of the page and the footer, separated from the main navigation and the rest of the content.

Top menu:

- Per gli psicologi: information on how to become a psychologist of SIPO and career opportunities
- Per le aziende: information about collaboration opportunities between SIPO and companies
- Help: information on practical issues for those interested in the services offered by SIPO, like instructions about how to book an appointment; it also includes the possibility for users to send a message in case they were not helped by the information provided in this section
- Search function: search by keyword, leading to advanced search that allows users to narrow down the scope of their search
- Il mio profilo



4.1 Information architecture

The new main navbar includes most of the elements present in the current design of the site. A proposed change is the separation of the information on mental health issues from the self-diagnosis test section. The new test page includes basic information about the respective disorder at the top of the page and a link to the Information page for those interested in reading more about it. The latter contains information on disorders, previously included in the Test section.

- Trova psicologo
- Lo psicologo risponde
- Sportello coronavirus
- Articoli
- Test
- Info sui disturbi



4.1 Information architecture

The homepage was stripped from the abundance of elements noticed in the previous design. The proposed design includes only the necessary elements and reduces the scrolling needed to get to the bottom of the page.

- Trova psicologo - Sportello coronavirus - Lo psicologo risponde (in a carousel at the top of the page)
- Cos'è il SIPO: a new section we propose with information about the organization
- Articoli
- Test
- Info sui disturbi

It is also worth mentioning that the logo of SIPO is visible on all pages, so that the users may return to the homepage at all times. The same holds true for the upper menu, the main navbar and the footer.



4.1 Information architecture

The footer:

1. Per gli psicologi

- Diventa psicologo SIPO
- Formazione e profilo
- Domande frequenti

1. Servizi per tutti

- Crea il tuo profilo
- Domande frequenti
- Trova psicologo
- Sondaggio: a section containing the survey questions previously included in the form for booking an appointment
- Privacy policy

3.

SIPO

- Chi siamo
- Contatti
- Rassegna stampa
- Rapporti SIPO
- Dicono di noi



4.2 CAO=S

Concepts refer to the way the users perceive the information types present in a system. Our concepts:

- Information: written text regarding mental health issues or the services offered by SIPO
- Appointment: meeting with a selected therapist
- Psychologist: expert who is part of SIPO
- Topics: thematic categories of articles on mental health
- Types of therapy: methods of conducting the sessions; traditional, online, chat, group
- Search Results: list of content related to a specific query made by the user
- Test Results: written text presenting the result of the self-diagnosis test and providing the user with advice
- Price: the fee required to follow therapy sessions, online or traditional
- Question: user's inquiry either on mental health (Lo psicologo risponde) or practical matters not covered in the Help section
- Personal account: the user's profile containing personal information the user wants to share and the journal
- Calendar: marks important events during a day and the days the user submitted a journal entry
- Journal: list of user's entries resembling a diary; visible only by the user and their therapist
- Journal entry: written text created by the user and containing descriptions of their personal experience

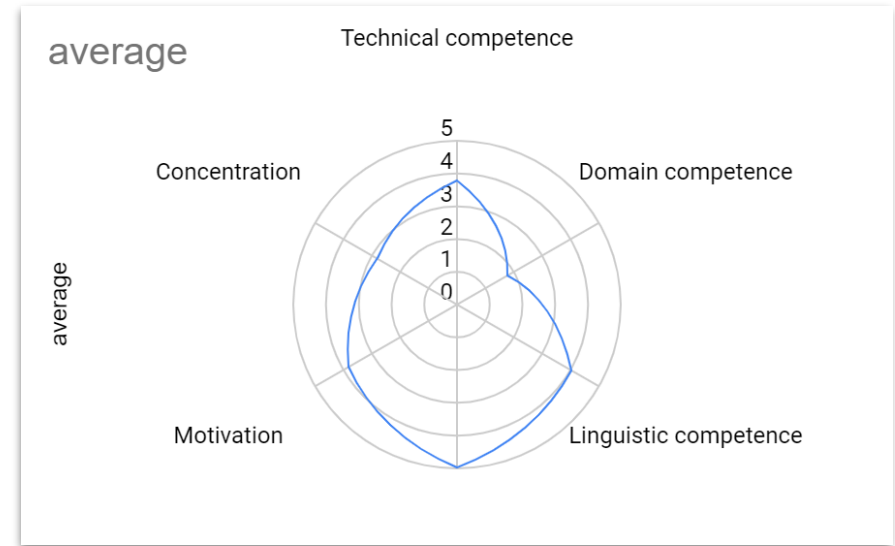
4.2 CAO=S



Actors are stakeholders who influence the design and in this model are characterized by six features relevant to the product:

- Technical competence
- Domain competence
- Language competence
- Physical ability
- Motivation
- Concentration

Using these features we characterized the personas we created in Part 3 and represented the results with the C&A diagram. The characterization of each actor can be found [here](#).





4.2 CAO=S

Creation refers to the generation of one or more instances of a concept.

- creation is manual
- default values in data entry fields
- one instance generated at a time
- instances of concepts that persist after the end of the operation are the journal entries and the account
- system displays previously submitted values in the booking procedure, with data that the user has already entered to create a profile
- A failure notification is displayed in the case of empty field in the form that users need to complete in order to book an appointment.

View concerns the mode of display of the concepts.

- full and multiple views, the latter to facilitate reading instructions or symptoms of disorders.
- display of the query results: paginated and divided by content; in the case of no results, the system suggests results of related queries

Update refers to changes in the instances:

- Users may update the results of their queries using filters, the information they share on their profile and the journal entries they have submitted.

Remove refers to removing one or more instances from the system.

- The users can delete their account and a journal entry.

CAO=S



users	information	appointments	psychologist	topics
creation	/	creation of a form with insertion of personal data Type: Manual creation; Default values in every box; No multiplicity and no persistence; Failure notification available.	/	/
view	view of information related to the site and mental health issue	/	view the list of psychologists and their profile and CV	View as drop down and as a list
update	/	/	/	/
remove	/	/	/	/

CAO=S



users	search result	test result	personal account	calendar
creation	/	/	creation of a personal account with personal information	/
view	View of search results according to specific queries	View the test result after the completion of the self test	view your personal account	view your calendar, with your appointments dates and your journal entries
update	update your search with filters	/	update your information	/
remove	/	/	delete your account	/

CAO=S



users	Journal	journal entry	question	price
creation	/	Create a new entry	creation of question in relation to a personal issue Type: manual creation; No multiplicity; Persistence (visualization of answers);	/
view	view your journal	view your entry	View the list of other users questions	View prices in the list of psychologists and as an additional search filter to look for a psychologist
update	/	update an already existing entry	/	/
remove	/	delete an entry	/	/

4.3 Interaction design

All the services present on the original SIPO website will be maintained (although changes are made).

Our proposal concerns two additional functions:



Personal profile



Search function

The dialogue design



The interaction style is based upon:

- Menu and navigation
- Question/answer
- Form-fill
- Natural language

And, most importantly:

- Direct manipulation

Screen design



Minimize the cognitive load of interactions

Sensory memory:

- appearance and position of elements
- few elements, in predictable and consistent position
- few elements for completing the tasks

Short-term memory:

- few steps to carry out tasks
- "go back" function

Long-term memory:

- not explicitly addressed in our design, but iconic memory is helped by the image choices



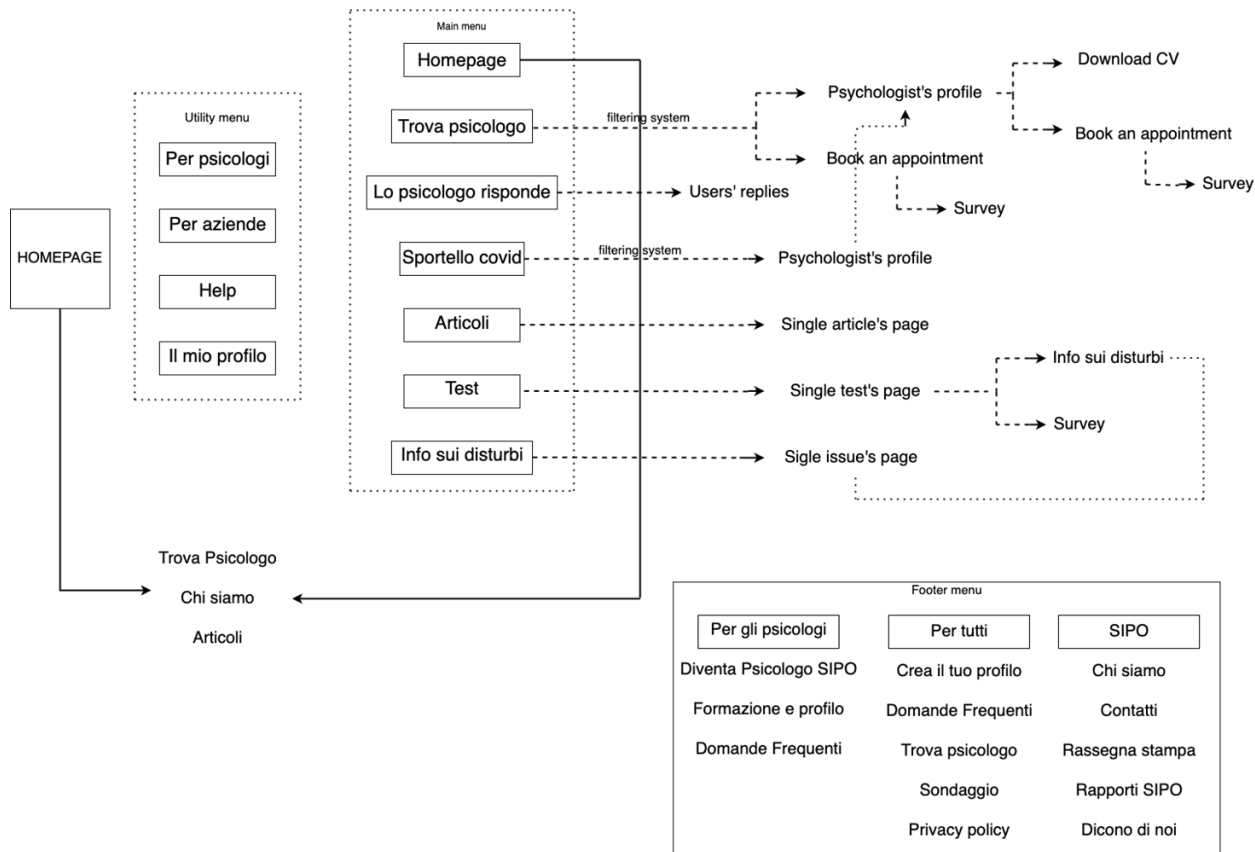
The 8 golden rules of dialogue

- Consistency
- Information feedback
- Closure
- Simple error-management strategies
- Reversibility to actions
- Shortcuts for expert users
- User's sense of control
- Reduce short-term memory load

The 5 rules of data display

- Consistency of the display
- Efficient assimilation of information
- Minimize memory load
- Display and insertion consistency
- Flexibility and display control

4.4 Structure blueprint



4.5 Wireframes

Following the blueprint we prepared, we created 36 wireframes explaining our redesign of the website. In order to do so, we used [Balsamiq](#), a software to create and manage wireframes.

The entire wireframes set can be seen in our [Final Design Highlights presentation](#).

5. Evaluation of the **Design**



5.1. Inspection

Inspection was carried out in two phases:

- Creation and self evaluation of a cognitive walkthrough
- Userfocus guidelines



5.1.1 Cognitive Walkthrough

User: Marco Rossi

Device: HP Computer

Task: Booking an appointment with a psychologist expert in depression

Happy path:

1. Access the SIPO website
2. From the homepage select “Trova psicologo” from the main navigation
3. On the first search box select “online” as type of therapy and on the second search box select “depression”
4. Click on “Cerca”
5. Search, among the result, for a suitable psychologist and select “Prenota un consultenza”
6. Complete the form with the required personal information
7. Send the form



5.1.1 Cognitive walkthrough (part 1)

Marco nervously scans the homepage looking for a way to find the right therapist for him. It looks promising; he can access the most important elements of the site from the homepage and the layout is clearly defined. The first big title at the top of the homepage catches his eye and in the midst of his anxiety he feels reassured that he is on the right track. He clicks on 'Trova psicologo' and sighs in relief when he glances at the search function, placed at the top of the page. He clicks on the drop-down menu titled 'Tipo di terapia' and among the four options of online, traditional, chat and group therapy, he chooses the online type of therapy. He then clicks on the second drop-down menu titled 'Problema' and hesitates for a second before the long list of mental health issues in alphabetical order. With a heavy heart, he chooses 'Depression'. He's not interested in the location of the therapist so he quickly clicks on 'Cerca' before he has time to change his mind. He is then redirected to the results page. He briefly glances at the images of the psychologists and reads their areas of expertise and the amount of money they charge for their services. He clicks on 'Guarda il profilo' of a psychologist that seems like a good fit. He reads the short bio and the presentation of the therapist's CV. Marco decides that the therapist looks really promising and clicks on 'Scarica il curriculum' at the bottom of the page to read more about her.



5.1.1 Cognitive walkthrough (part 2)

After going through the pdf document of her CV he is convinced that she could be a suitable choice for him. He closes the document and goes back to her profile. He clicks on 'Richiedi consulenza' at the bottom of the page and he is led to a page that asks him to create an account or sign in to an existing one. Since he has never used the site before, Marco clicks on 'Sign up' at the right part of the page. He is grateful that the process of creating a profile is short: he fills in his name, surname, birth date and e-mail and sets a username and password. He then clicks on 'Crea' at the end of the form and is brought back to the profile of the therapist he was interested in. He clicks once more on 'Richiedi consulenza' and is led to another form. He is surprised when he sees that some fields are already filled with the information he gave when creating an account. He only has to fill in an email and the name of his city, state the reason for wanting to book an appointment with the specific therapist and describe his problem. He clicks on 'Sì' in the last question about whether this was his first time seeing a therapist and then clicks on 'Invia' at the end of the form. He sighs with relief as he reads the message by the site that lets him know that the form was completed successfully and that he would be contacted soon by the therapist.



5.1.1 Cognitive Walkthrough

Self Evaluation

- Psychological behaviour
- Task Completion
 - Difficulty
 - Happy path
 - Time needed



5.1.2 Userfocus Guidelines

	Raw score	# Questions	# Answers	Score
Home Page	13	20	14	96%
Task Orientation	15	44	18	92%
Navigation & IA	13	29	17	88%
Forms & Data Entry	6	23	8	88%
Trust & Credibility	7	13	8	94%
Writing & Content Quality	8	23	11	86%
Page Layout & Visual Design	18	38	24	88%
Search	10	20	13	88%
Help, Feedback & Error Tolerance	13	37	18	86%
Overall score		247	131	90%

All the scores we assigned to the specific guidelines set can be seen [here](#).

5.1.2 Userfocus Guidelines



Violated guidelines:

- Navigation and IA: 30. Navigation only pages such as the homepage can be seen without scrolling
- Page layout and Visual design: 35. Color is used to group items on the page
- Help, Feedback and error tolerance: 30. The site provides feedback that helps the user learn how to use the site

Improvements over previous website:

- Homepage: elimination of redundant information and excessive content
- Task orientation: easier to complete tasks (better organization of the information and various help mechanisms)
- Navigation: reorganization and redesign of various item in all navigations
- Forms and Data entry: redesign of questions and creation of a (optional) survey
- Trust and credibility : creation of a 'chi siamo' page as well as a clearer presentation of contacts
- Writing: reorganization of content and better division of pages
- Page layout and visual design: cohesive layout, recurring items, navigation.
- Search: creation of a search feature
- Help, Feedback and error tolerance: creation of Help page, inclusion of feedback for various tasks.



5.2. User tests

Testing protocol

- **Testing method:** Guerrilla testing (or discount testing)
- **Number of tests:** three
- **Number of subjects:** three, belonging to our target users
- **Testing methodology:** thinking aloud
- **Expected results:**
 - Completion of all tasks
 - No more than 7 actions for most complex tasks and no more than 4 for easier ones
 - Use of search function in case of doubt



5.2. User testing (2)

Tasks

- booking an appointment with a psychologist
- looking for articles about the specific topic “ansia e paure”
- looking for information about an problem “ADHD”
- read on different types of therapy (support groups, personal therapy etc.)
- look for a psychologist who is expert on a specific issue (depression)
- find self test about ADHD
- search for all content about depression
- Create a new note on your journal
- Ask a question about how to pay for sessions




5.2. User Tests

Analysis after first 3 tests

- In the main navigation 'sanità mentale' is not a clear term for the type of content of that section. (mentioned 3 times)
- In the 'trova psicologo' page, the search options are not totally clear even with the active default values. (mentioned 1 time)
- In the 'Trova psicologo' page, the results should be underlined somehow. (mentioned 1 time)
- The name Sipo is not a well known one and it is not clear what it means. (mentioned 1 time)
- The 'Chi siamo', now on the footer is not very accessible.

5.2 User Testing (4)



Task	User 1	User 2	User 3	User 4
Task 1	No error	No error	No error	No error
Task 2	No error	No error	No error	No error
Task 3	Major error	Major error	Minor error	No error
Task 4	Cosmetic error	Cosmetic error	No error	Cosmetic error
Task 5	No error	No error	No error	No error
Task 6	No error	No error 	No error	No error
Task 7	No error	No error	No error	No error
Task 8	No error	No error	No error	No error
Task 9	No error	No error	No error	No error

- Error free rate is 83%
- Completion rate is 100%
- Number of actions never over 6
- Sus score 82%

[Our result table](#)

Final recommendations



- Adjustment of contents
- Assurance of privacy and of respect of private data
- Inclusion of therapy done by chat



References

- Algeri, D. (2011, December 2). Psicologia online e di consulenza a distanza: i servizi del Sipo. *Davide Algeri*. Retrieved from <https://www.davidealgeri.com/psicologia-online-del-sipo/>
- Cooper, A.; Reimann, R.; Cronin, D.; Noessel, C. (2014) *About Face: The Essentials of Interaction Design*. John Wiley & Sons, Inc. Indianapolis, USA.
- Drexler, P. (2019 March, 1). Millennials are the therapy generation. *The Wall Street Journal* Retrieved from: <https://www.wsj.com/articles/millennials-are-the-therapy-generation-11551452286>
- Ferro, E. (2020, May 9) Coronavirus, effetto lockdown: ansia e depressione per l'85% dei giovani. *La Repubblica*. Retrieved from https://www.repubblica.it/cronaca/2020/05/09/news/coronavirus_effetto_lockdown_ansia_e_depression_e_per_l_85_dei_giovani-256134039/
- Garrett, J. (2011) *The elements of user experience: User-Centered Design for the Web and Beyond*. New Riders, USA
- Harris, P. (2013). *Data Driven Design: How Today's Product Designer Approaches User Experience to Create Radically Innovative Digital Products*. K & R publications, USA
- Travis, D. (2014, October 22). 247 usability guidelines. In *Userfocus*. retrieved from: <https://www.userfocus.co.uk/resources/guidelines.html>
- Weinschenk, S. (2011). *100 things every designer needs to know about people*, New Riders, USA