# USABILITY & USER EXPERIENCE DESIGN DIGITAL HUMANITIES AND DIGITAL KNOWLEDGE

# PROJECT MANAGEMENT REPORT

# RUEL

Il mercato creativo

# **Sans Comics Team:**

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# INTRODUCTION

The digital age has revolutionized the way we connect, engage and create, but in the midst of this transformation is a demographic that is often overlooked - **seniors and retirees** who have navigated a very different world to the one they inhabit today. In a rapidly evolving digital landscape, bridging the gap between creative expression and online engagement is critical, and no one should be left behind. It is in this context that we introduce "*Ruel - il mercato creativo*", an innovative platform designed to empower retirees, or more generally, people aged 60 to 75.

Our platform draws inspiration from the legacy of Paul Durand-Ruel, the pioneering French art dealer associated with the Impressionist and Barbizon painters. Durand-Ruel was a visionary who recognised the brilliance of artists such as Claude Monet, Camille Pissarro and Pierre-Auguste Renoir when they were marginalized by traditional art institutions. He championed their work, effectively modernizing the art market and reshaping the course of art history. In a similar way, today's seniors and retirees find themselves in a position of both potential and challenge. Our application, Ruel, aims to empower this vibrant demographic by providing them with a digital space where they can share their artistic creations, connect with like-minded individuals, explore new opportunities and redefine their retirement years as a time of creativity and personal growth.

For these individuals, Ruel is more than just a platform - it is a gateway to **technological independence**, a channel for expressing their unique talents, and a means of fostering a sense of community and purpose. By providing intuitive user interfaces, responsive customer service, comprehensive tutorials and a supportive environment, Ruel addresses the **specific needs** and limitations of our target users, ensuring that they not only participate in the digital age, but thrive in it.

Through Ruel, seniors and retirees can embrace the digital age with confidence and discover a newfound passion for creativity, learning and connection, and it is with great enthusiasm that we present our UI/UX design report, highlighting the thought, care and dedication that has gone into creating this platform.

# 1. ETHNOGRAPHIC RESEARCH

#### 1.1. USER SEGMENTATION

Understanding the unique characteristics, preferences, and needs of our target user segment is paramount in crafting a successful and **user-centric design** for our product. As we delve into the intricacies of user segmentation, we gain invaluable insights that serve as the cornerstone of our product's design decisions.

#### 1.1.1. DEMOGRAPHIC

The first step was to understand the **demographics** that shape their preferences and behaviors. By understanding factors such as age, education, income and location, we were able to tailor our design to their specific needs and create a more **inclusive** and user-friendly experience.

- Age: 60+, more specifically 60-75 years old
- Gender: Primarily female, but also includes males
- Marital Status: Varied, including singles, widowed, and married individuals
- **Schooling**: Varied, with a mix of high school graduates and college-educated individuals<sup>1</sup>
- Language Proficiency: Varies depending on the region of Italy, with some elderly sellers speaking different dialects or languages in addition to Italian. This may impact their communication with customers and navigation of online platforms available in Italian or English
- Income: Middle-class to upper-middle-class, with reference to the median equivalised disposable income of individuals aged 65 and over in Italy being €20,178 per year<sup>2</sup>
- **Geographic Location**: Suburban areas, smaller towns with a strong sense of community, and regions with active senior centers and a desire for engaging retirement activities
- Professional Background:

- 1. Retired individuals from diverse professional backgrounds, such as teachers, healthcare workers, and office professionals;
- 2. Some may have explored creative hobbies during their working years or possess latent artistic interests.

<sup>&</sup>lt;sup>1</sup> According to Eurostat data from 2019, around 28% of individuals aged 65-74 in Italy had completed only lower secondary education or below, while around 46% had completed upper secondary education.

 $<sup>^2</sup>$  According to Eurostat data from 2020, the median equivalised disposable income of individuals aged 65 and over in Italy was €20,178 per year.

#### 1.1.2. PSYCHOLOGICAL

Beyond the surface qualities, looking into our user base's psychological components provided a more **in-depth insight** of their values, views, and motivations. Understanding their technology familiarity, artistic goals, and lifestyle preferences enabled us to develop a product that resonates with their aspirations, resulting in a really enriching and rewarding user journey.

- **Technology Experience**: May vary based on familiarity with using computers, smartphones, etc., as they may not be entirely comfortable with technology, given their age. Novice vs. experienced, potentially gained from prior job experiences.
- Shopping Habits:
  - 1. Embraces online shopping due to convenience and accessibility;
  - 2. Values platforms offering comprehensive resources;
  - **3.** Willing to invest in quality materials and tools enhancing creative experiences.
- **(E-)Commerce Experience**: Exploration of their experience with selling and why they would use the service. Novice vs. experienced sellers, potentially gained from prior job experiences.
- Artistic Experience: Varying levels of artistic experience, from professional artists rekindling their passion to newcomers exploring creative endeavors.
- Interests: Strong interest in art, creativity, and artistic pursuits. May enjoy art exhibitions, socializing, health and wellness activities, and potentially travel and technology engagement.
- Values: Values personal growth, self-expression, and making the most of retirement years. Seeks fulfilling activities for a sense of accomplishment and creative exploration. Takes joy in creating tangible and meaningful results through artistic efforts.
- Challenges:
  - 1. Strives to find enjoyable and meaningful activities during retirement;
  - Experiences a lack of structured engagement after retiring from a busy work life;
  - **3.** Trusts *recommendations* from fellow retirees or family members embracing creative retirement hobbies.

### 1.2. USER RESEARCH

User research of this project involved conducting **anonymous interviews** with individuals from the selected target segment. The interviews were conducted either in person or through video calls. The questions included in the interview sessions are presented in the following section.

#### 1.2.1. INTERVIEW TEMPLATE

- Gender
- Age
- Education
- Occupation

#### **ELECTRONIC DEVICE AND INTERNET USE:**

- 1. What electronic devices do you own? Which one do you use the most?
- 2. Are you familiar with **online shopping**? Can you name some e-commerce websites?
- **3.** Are you familiar with selling products online? Do you know some websites for **selling online**?
- **4.** What **difficulties** do you face when using online platforms for buying and selling?
- **5.** What **positive aspects** do you find in using online platforms for buying and selling?
- **6.** Can you provide **examples of websites** you like and frequently use? What do you like about them?

#### **LEISURE TIME ACTIVITIES:**

- 1. How would you describe yourself, as an introvert or extrovert?
- 2. Do you engage in creative and **artistic activities** in your spare time?
- **3.** Do you take **classes** or attend events, exhibitions, or presentations related to your interests in your spare time?
- **4.** Do you spend time with people who share the same activities as you? How important is the **social aspect** to you?

#### **SELLING YOUR OWN PRODUCTS:**

- 1. Would you **consider selling** your products online? Would you be willing to pay for a service that allows you to sell your product?
- 2. Do you imagine using this platform more on your smartphone or computer?
- **3.** What measures should a website take to **gain your trust** in using it to sell your products?

#### 1.2.2. INTERVIEWS

As part of our comprehensive user research, we conducted a series of **eight interviews** with participants from our target user segment. These interviews were carefully **transcribed** to ensure a thorough and accurate representation of the discussions.

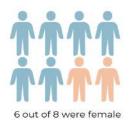
The full transcripts can be found in the **appendix** at the end of the document, providing a comprehensive resource for those interested in delving into the finer details. In this section, we are just going to present an **overview** of the findings from these interviews, highlighting the key insights and patterns that emerged from our interactions with participants.

#### 1.2.3. CONCLUSIONS

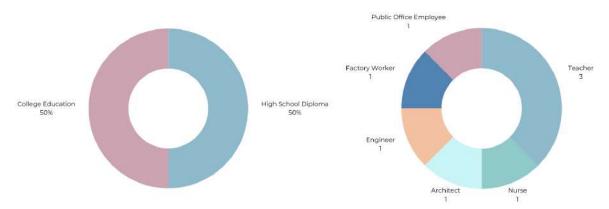
#### **DEMOGRAPHIC**

In our series of eight interviews, we engaged with a diverse group of individuals, ranging from **65 to 73 years** of age (with an average age of **68.8 years**) and predominantly consisting of **women** (6 out of 8).

Their educational backgrounds varied, with four interviewees possessing a diploma and the remaining four having some college education. All participants were **retired**, and we observed a range of professions among them, including three of them in teaching, as well as public office, engineering, nursing, architecture, and factory work.

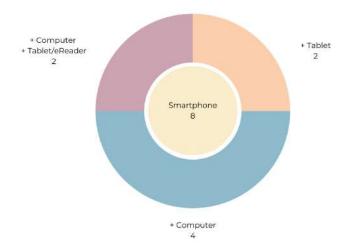






# TECHNOLOGICAL PROFICIENCY AND (E-)COMMERCE EXPERIENCE

Technological adoption emerged as a common theme, as all interviewees owned a **smartphone**. 2 participants possessed both a tablet and a smartphone, 4 had access also to a computer, and 2 had a computer along with a tablet or an ebook reader.



When it comes to **online shopping**, our findings indicated that while all participants were familiar with the concept, opinions varied. While one individual expressed a lack of enjoyment, 4 respondents mentioned frequent or regular online shopping experiences. Notably, **Amazon** emerged as the preferred platform for seven out of eight interviewees, showcasing its popularity among this segment.

Additionally, our interviews unveiled a noteworthy insight regarding **specialized online shops**. 4 participants highlighted the appeal of specialized shops for specific products, emphasizing how online platforms enable easier access to niche products and services of higher quality. Interestingly, only 1 of the interviewees had engaged in online selling, utilizing **Subito.it** for the purpose.

The responses from our interviews also shed light on the **challenges** and concerns faced when using the previously mentioned online platforms. A common thread among the answers was the apprehension related to the **online payment process** and concerns about **sharing personal information**. While some interviewees expressed discomfort with saving credit card details on websites, others highlighted the anxiety of not receiving regular shipping updates or the potential risk associated with sharing personal and financial information online.

Another prevalent issue was the difficulty in finding specific products or encountering incomplete product descriptions and images. This resonated particularly with interviewees who sought clarity in size, color, and other product attributes. A recurring theme of security concerns emerged, with participants expressing worry about scams, fraud, and navigating the vast landscape of different online sellers.

Interestingly, the interviewees' experiences with **customer service** varied, with some mentioning positive interactions when addressing issues such as undelivered items. Additionally, participants mentioned time constraints and the need for streamlined processes during

time-sensitive purchases like event tickets. This was underscored by the desire for efficient and user-friendly interfaces to facilitate smoother transactions.

Through the responses of our interviewees, several **positive aspects** of using online platforms for buying and selling emerged as well. A prevailing sentiment was the **efficiency** and **convenience** offered by online shopping. This included the ease of navigating a wide variety of choices, time-saving benefits, and the convenience of home delivery. Many appreciated the availability of unique products and the ability to access a range of items and information with just a few clicks.

Additionally, the **speed of shipping services** and the ability to find **special discounts and deals** were cited as appealing attributes. Some interviewees saw online selling as an opportunity to reach a broader audience and share their creative work, highlighting the potential for extra income. The convenience of comparing prices, accessing detailed information, and reading customer reviews resonated with several participants, adding value to their online shopping experiences.

Lastly, we were interested in knowing what kind of online services, platforms and websites were generally most appreciated by our interviewees. **Amazon** emerged as a popular choice, praised for its straightforwardness, clear organization, and easy navigation. For one interviewee, Amazon's interface was so appealing that they browse it daily. Similarly, **IKEA's** website was mentioned for its engaging browsing experience, even when not actively shopping. The simplicity and user-friendly design of these platforms resonated positively with users.

Another interviewee mentioned Pinterest for the platform's visual appeal and utility for creative ideas, and others websites like Einaudi and Feltrinelli for their clear and well-organized layouts, contributing to seamless shopping experiences. Interestingly enough, some interviewees also mentioned social media platforms like Facebook and Instagram.

#### LEISURE TIME ACTIVITIES

Responses to the question about **introversion and extroversion** provided interesting insights into the personalities of our interviewees, allowing us to better tailor a user experience more aligned with their natural inclinations. The majority identified themselves as introverts, expressing a preference for solitary activities that align with their hobbies. Engaging in creative pursuits like art, knitting, and gardening served as an avenue for meaningful self-expression and fulfillment for these individuals. Spending time at home, often reading, working on DIY projects, or pursuing personal interests, was a common trait among the self-described introverts.

Results from the responses to the question about engaging in **creative** and artistic activities in their spare time reveal a strong inclination towards creative hobbies within our target demographic. Among the interviewees, 6 out of 8 participants actively pursue creative endeavors in their free time, with some engaging in activities like painting, sewing, knitting, woodworking, and crafting. Painting emerged as a popular choice, highlighting the therapeutic and joyful aspect of expressing creativity through art. Several interviewees noted the **mental and emotional benefits of engaging in creative activities**, such as keeping the mind sharp and relieving stress.







Insights from responses to the question regarding **participation in classes**, events, exhibitions, or presentations related to their interests helped us to understand their active engagement with their artistic pursuits. 3 out of 8 interviewees actively take classes or workshops to enhance their skills in various artistic domains, such as sewing, knitting, and woodworking. These classes provide them with opportunities to learn new techniques and connect with fellow enthusiasts. Attending events and exhibitions is a common practice among our users, with 4 out of 8 participants mentioning their involvement. Online engagement was noted as 2 out of 8 respondents mentioned attending online lectures and tutorials. This highlights the adaptability of our target demographic to digital learning and interaction. Involvement in organizing events was noted by 1 participant, who contributes to arranging exhibitions for other artists.

**Lifestyle considerations** emerged in the responses as well. One interviewee shared that the availability of workshops and events influenced their decision to stay in an urban area, emphasizing the significance of local creative opportunities. **Geographical limitations** were mentioned by one respondent who lives in a small town with limited activities, impacting their ability to access art-related classes or events.

Regarding spending time with individuals who share similar activities 6 out of 8 participants expressed a degree of engagement with like-minded individuals, valuing the opportunity to connect and interact with peers who share their creative interests. The desire to confront other artists, gain confidence, and establish relationships was emphasized by a few interviewees, indicating that social interactions

contribute to personal and artistic growth. Attending **social events** such as exhibitions, book presentations, and art club meetings was noted as a means to connect with individuals who share similar interests and values. The social aspect was deemed crucial by some participants, who find inspiration, motivation, and a sense of community through these connections. However, solitude during the creative process was treasured by a couple of interviewees, highlighting the need for a balance between social engagement and personal artistic expression. Again, **geographical constraints** or a **lack of close friends with similar passions** impacted the social aspect for some participants.

#### **SELLING YOUR OWN PRODUCT**

Several participants expressed interest in **selling** their artistic creations online, recognizing the potential to reach a broader audience and share their work.

Challenges associated with online selling included creating ads, product promotion, and website trustworthiness, which were cited by multiple interviewees as factors that could potentially deter them from engaging in online sales. The importance of a user-friendly platform emerged as a common theme, with participants highlighting the need for an interface that simplifies the process of setting up and managing an online store. Flexibility and autonomy were important considerations for some interviewees, indicating that they would be more inclined to engage in online selling if it allowed them to maintain control over their creative process and commitments.

Participants expressed a **willingness to pay** for a service that provides assistance in selling and marketing support, as long as the cost is perceived as reasonable and the service offers tangible value.

While some participants had not considered online selling before, they expressed openness to the idea, suggesting that a user-friendly platform could potentially encourage their engagement. The **desire to make space at home**, the **support and encouragement** of family members, and the potential to **earn extra income** were motivators for considering online sales among some participants.

Responses to the question about **platform preference** (smartphone or computer) for using the online selling platform a significant majority (5 out of 8 participants) expressed a preference for using a **computer** over a smartphone for tasks related to online selling. This preference was often attributed to the comfort of a larger screen and keyboard for tasks that involve browsing, managing listings, and interacting with the platform.

Three participants indicated a preference for using their smartphones,

highlighting their familiarity and ease of use with the device. Even if one of them acknowledged the benefits of using a computer for specific tasks but generally leaned towards smartphone usage.

#### **GAINING TRUST**

Regarding measures to gain their trust when using an online selling platform, the majority of participants (7 out of 8) emphasized the importance of clear and transparent information related to fees, shipping, and customer support policies. This suggests that open communication about these aspects can enhance trust.

Secondly, recommendations from friends or acquaintances and the presence of user reviews and ratings were highlighted by some participants, reflecting the importance of **peer feedback** and the value of social proof and referrals in building trust. Professionalism and visual appeal of the platform, mentioned by an interviewee, could also influence the perception of trustworthiness, highlighting the significance of a visually appealing design.

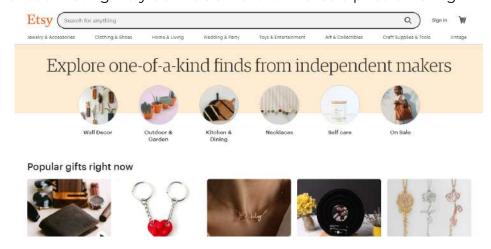
Last but not least, as already came out in a previous question, the notion of **paying for a service** was seen as an indicator of quality and reliability by two participants, suggesting that a premium or subscription-based model could instill confidence in certain users.

# 2. ASSESSMENT OF EXISTING RESOURCES

This section addresses the inspection of two web applications that offer similar services to the application described in this report, **Etsy** and **Sellbrite**.

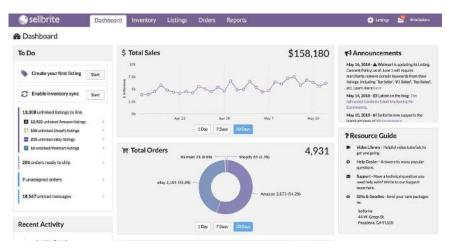
#### **ETSY**

Etsy is an American **e-commerce** platform focused on handmade and vintage products including jewelry, bags, clothing, home décor and art. Users can post listings on the shop to sell their items by paying 0,20 USD for each listing. Etsy claims 6.5% of the final sale price of listing.



#### **SELLBRITE**

Sellbrite is a cloud-based software that helps online sellers **manage inventory and sales** across multiple e-commerce channels, including marketplaces (like Amazon, eBay, Etsy, Walmart, and others) and their own website. It offers features like centralized inventory management, order fulfillment, and product listing optimization to streamline multichannel e-commerce operations and increase sales potential.



# 2.1. EXPERT USABILITY REVIEW

#### 2.1.1. CHOICES OF GUIDELINES

As for the analysis guidelines, we opted for userfocus.co.uk "247 Web Usability Guidelines" mostly due to its expertise, authority, and focus on user-centered design.

As a reputable website in the field of user experience and usability, it offers valuable resources and practical insights for understanding user needs, improving user-friendly experiences, and producing accurate evaluations on the matter.

Moreover, since our project involves e-commerces, it was paramount for us to consider guidelines that specifically addressed the challenges and best practices within their domain. Userfocus.co.uk covers various aspects of e-commerce user experience, like navigation, product presentation, checkout processes, and trust-building elements.

Therefore, by referring to their guidelines, we were able to ensure credibility, industry alignment, and a thorough evaluation of the Sellbrite and Etsy websites.

- 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. ASSESSMENT OF THE ETSY WEBSITE

#### FIRST INSPECTION OF THE SYSTEM

Etsy is a transversal online marketplace of extensive collections of handmade and handcrafted objects. The website includes the following sections:

- Header (Consistent across all pages)
- Homepage
- Category Pages
- Product Listing Page
- Cart Page
- Checkout Page
- Seller Profile Page
- Order History Page
- Help Center or Support Pages
- Community or Blog Pages

Etsy website's design is clean and intuitive, allowing users to easily navigate and find the items they are looking for. Filters and parameters allow to narrow down search results among the wide range of categories; personalized recommendations are provided based on users' recent activities. However, some areas for improvement include improving the **content structure on the homepage**, enhancing clarity on customized product pricing, and refining the search engine to improve accuracy.

Upon closer examination certain **usability drawbacks** become evident. The following paragraphs provide a more accurate overview of the encountered issues on the Etsy website based on the previously selected usability guidelines.

When it comes to customized products, Etsy could improve on providing **clearer pricing information**. Some sellers may not clearly indicate the additional costs associated with customization, leading to confusion for buyers.

A further difficulty on the Etsy website arises when attempting to **browse extra content**, such as seller profiles, which are not highlighted properly on the product page.

#### **DIRECT ANALYSIS: SYSTEM VS GUIDELINES**

	Raw score	# Questions #	# Answers	Score
Home Page	12	20	20	80%
Task Orientation	22	44	42	76%
Navigation & IA	17	29	26	83%
Forms & Data Entry	13	23	19	84%
Trust & Credibility	10	13	10	100%
Writing & Content Quality	9	23	18	75%
Page Layout & Visual Design	24	38	37	82%
Search	11	20	19	79%
Help, Feedback & Error Tolerance	22	37	28	89%
Overall score		247	219	83%

userfocus.co.uk, guidelines: Results

The table shows the results of the analysis of the Etsy website based on the guidelines provided by *userfocus.co.uk*.<sup>3</sup> The website has obtained positive results, as it meets **83**% of the requirements addressed in the guidelines. The following paragraphs include the most evident **usability drawbacks** encountered on the main sections of Etsy.

#### Homepage

The website homepage can appear chaotic and crowded at times. The abundance of information may overwhelm new users.<sup>4</sup> A cleaner and more linear design could greatly enhance the browsing experience. The homepage also suffers from a **lack of visual hierarchy**. No colors are used to differentiate sections, which can make it challenging to distinguish between different content areas.<sup>5</sup>

The content of the homepage's main section is not ordered in logical or task-oriented order and could be **confusing** for some users. More than half of the page is taken by previously seen content, hindering discoverability.

Users need to scroll to view the full homepage - and the more users navigate on the site, the more content appears on the homepage, making it more confusing.<sup>7</sup>

Due to the layout of the main content, users could also mistake navigation areas for advertisement.<sup>8</sup>

<sup>&</sup>lt;sup>3</sup> The results of the analysis are included in this <u>document</u>.

<sup>&</sup>lt;sup>4</sup> userfocus.uk.co guidelines section: *Homepage*, guideline 15.

<sup>&</sup>lt;sup>5</sup> userfocus.uk.co guidelines section: *Page Layout and Visual Design*, guideline 26.

<sup>&</sup>lt;sup>6</sup> userfocus.uk.co guidelines section: *Homepage*, guideline 11.

<sup>&</sup>lt;sup>7</sup> userfocus.uk.co guidelines section: *Navigation & IA*, guideline 21.

<sup>&</sup>lt;sup>8</sup> userfocus.uk.co guidelines section: *Homepage*, guideline 8.

The categories menu is not prominently displayed; the **visibility and accessibility of the menu** should be enhanced, for example by increasing font size.<sup>9</sup>

Furthermore, the **value proposition** of the platform is not evident: Etsy allows users to both buy and sell products, but the focus on the homepage is on the buying experience, so that users willing to sell their products need to navigate the website to find relevant information.<sup>10</sup>

Finally, there is not a strong differentiation between the layout of the homepage and lower pages.<sup>11</sup>

#### Category Pages and Search Engine

The main drawbacks that emerged from the analysis of category pages and from the use of the search engine are listed below.

Users cannot configure the **number of results per page**, which would be a useful functionality in case of a high number of results.<sup>12</sup>

A further area where Etsy could enhance its usability is the **search engine** functionality. Search results are usually not entirely relevant or accurate.

If no results matching the query are available, the system **does not offer options to improve the query**, but only offers an overview of recently viewed items.<sup>13</sup>

The search engine does not include templates, examples, hints on how to use it effectively, nor the possibility of refining the search, it only offers autocomplete suggestions and does not provide an option for similarity search either.<sup>14</sup>

#### Product Listing Page

No product comparison tool is available on product listing pages.<sup>15</sup>

The **product price** is not always clearly displayed near the product, as it varies based on selected size and features for certain items. In such cases, only the minimum price is properly shown alongside the item, which may mislead users into expecting a lower price than the actual product price.<sup>16</sup>

<sup>&</sup>lt;sup>9</sup> userfocus.uk.co guidelines section: *Homepage*, guideline 3.

<sup>&</sup>lt;sup>10</sup> userfocus.uk.co guidelines section: *Homepage*, guideline 14.

<sup>&</sup>lt;sup>11</sup> userfocus.uk.co guidelines section: *Homepage*, guideline 20.

<sup>&</sup>lt;sup>12</sup> userfocus.uk.co guidelines section: Search, guideline 4.

<sup>&</sup>lt;sup>13</sup> userfocus.uk.co guidelines section: Search, guideline 5.

<sup>&</sup>lt;sup>14</sup> userfocus.uk.co guidelines section: *Search*, guideline 8, 20.

<sup>&</sup>lt;sup>15</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 12.

<sup>&</sup>lt;sup>16</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 21.

Data formats do not adhere to appropriate cultural conventions, as they frequently use **inches measurements** without converting them to the metric system.<sup>17</sup>

Some links on product listing pages, such as user shops on the item page, **lack visual indications** and are only highlighted as clickable links when hovered over.<sup>18</sup>

# • Cart and Checkout Page

If the user is half-way through a transaction and quits, the user cannot later return to the site and continue from where he left off, but needs to start over from the basket.<sup>19</sup> During the payment process it is not possible to leave the page without having to go through an **extended dialog**: a double confirmation is necessary to leave the page.<sup>20</sup>

When finalizing the order on the checkout page, users cannot look for the postcode automatically.<sup>21</sup>

#### **REVERSE ANALYSIS: GUIDELINES VS SYSTEM**

We will now address the remaining main issues that have been identified by comparing the guidelines with the website.

#### Task Orientation

The website strongly **focuses on buyers**, which can make it challenging for first-time visitors who are interested in selling products to quickly find information on how to create an online shop and start selling.<sup>22</sup>

A further issue concerns the website's **privacy policy**. The privacy policy, although written in simple language, is lengthy and requires users to click on multiple links to fully comprehend its contents.<sup>23</sup>

#### Navigation & IA

The **site map** only provides a list of shopping categories, and does not offer a comprehensive overview of the website.<sup>24</sup>

#### Forms & Data Entry

While the site automatically provides currency symbols, it seems to have **problems handling commas and dots** when inserting product prices.

<sup>&</sup>lt;sup>17</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 25.

<sup>&</sup>lt;sup>18</sup> userfocus.uk.co guidelines section: *Navigation & IA*, guideline 14.

<sup>&</sup>lt;sup>19</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 36.

<sup>&</sup>lt;sup>20</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 24.

<sup>&</sup>lt;sup>21</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 10.

<sup>&</sup>lt;sup>22</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 29.

<sup>&</sup>lt;sup>23</sup> userfocus.uk.co guidelines section: *Task Orientation*, guideline 22.

<sup>&</sup>lt;sup>24</sup> userfocus.uk.co guidelines section: *Navigation & IA*, guideline 10.

For instance, the site automatically converts numbers with dots to thousands, which causes € 15.20 to be displayed as 1.520,00.<sup>25</sup>

Forms do not provide prior notification to the user if external information is required for completion.<sup>26</sup>

The website does not facilitate easy error correction, such as automatically positioning the cursor at the location where correction is needed when a form is incomplete.<sup>27</sup>

# Writing & Content quality

Although most website content, such as product listings, is organized hierarchically, sections such as "Because you viewed", "Recently viewed", sponsored content, and other recommendations do not appear to follow a clear or consistent **logical order**.<sup>28</sup>

Within the blog section, articles do not always present a concise introduction before their lists.<sup>29</sup>

Pages are not always quick to scan; in particular, the homepage contains several sections that make the page **unnecessarily long**. This makes it harder to reach the footer quickly.<sup>30</sup>

#### • Page Layout & Visual Design

Some clickable images lack redundant text labels. For instance, product images in the suggestion sections **do not include labels** about the content, but only display the price of the item.<sup>31</sup>

The pages on the site are not optimized for printing, resulting in **poor-quality output**. For example, icons in the menu appear in a column taking up to half of the page.<sup>32</sup>

Some buttons and links don't indicate that they have been clicked. For instance, the "Add to cart" button and several other buttons and links do not change after being clicked.<sup>33</sup>

Certain sections of the website feature **small text sizes**, which can make them difficult to read. Examples include the categories menu and suggestion links on the homepage.<sup>34</sup>

<sup>&</sup>lt;sup>25</sup> userfocus.uk.co guidelines section: *Forms & Data Entry*, guideline 3.

<sup>&</sup>lt;sup>26</sup> userfocus.uk.co guidelines section: Forms & Data Entry, guideline 8.

<sup>&</sup>lt;sup>27</sup> userfocus.uk.co guidelines section: Forms & Data Entry, guideline 21.

<sup>&</sup>lt;sup>28</sup> userfocus.uk.co guidelines section: Writing & Content guality, guideline 7.

<sup>&</sup>lt;sup>29</sup> userfocus.uk.co guidelines section: Writing & Content quality, guideline 5.

<sup>&</sup>lt;sup>30</sup> userfocus.uk.co guidelines section: Writing & Content quality, guideline 12.

<sup>&</sup>lt;sup>31</sup> userfocus.uk.co guidelines section: Page Layout & Visual Design, guideline 8.

<sup>&</sup>lt;sup>32</sup> userfocus.uk.co guidelines section: *Page Layout & Visual Design,* guideline 15.

<sup>&</sup>lt;sup>33</sup> userfocus.uk.co guidelines section: *Page Layout & Visual Design*, guideline 16.

<sup>&</sup>lt;sup>34</sup> userfocus.uk.co guidelines section: *Page Layout & Visual Design*, guideline 18.

#### 2.1.3. ASSESSMENT OF THE SELLBRITE WEBSITE

#### FIRST INSPECTION OF THE SYSTEM

Sellbrite is a comprehensive platform designed to **simplify** multi-channel e-commerce management. The website's structure comprises several key sections that serve distinct purposes:

- Dashboard;
- Products;
- Listings;

- Orders:
- Reports;
- Settings.

Upon a first inspection, the design and aesthetic of Sellbrite are modern and visually appealing. The clean and intuitive layout eases the navigation and accessibility to its various features.

Sellbrite's strong points lie in its user-friendly interface, efficient organization of product and order management, and robust reporting and analytics capabilities. However, it is important to note that the website may have some minor flaws, such as potential **complexities in configuration** and a learning curve for new users.

Despite these shortcomings, Sellbrite stands out as a powerful tool for businesses seeking streamlined multi-channel e-commerce operations.

#### **DIRECT ANALYSIS: SYSTEM VS GUIDELINES**

	Raw score	# Questions	# Answers	Score
Home Page	17	20	20	93%
Task Orientation	31	44	44	85%
Navigation & IA	20	29	29	84%
Forms & Data Entry	20	23	23	93%
Trust & Credibility	12	13	13	96%
Writing & Content Quality	18	23	23	89%
Page Layout & Visual Design	36	38	38	97%
Search	0	20	20	50%
Help, Feedback & Error Tolerance	24	37	37	82%
Overall score		247	247	86%

userfocus.co.uk, guidelines: Results

The table presents the outcomes of the analysis conducted on the Sellbrite website, following the guidelines provided by userfocus.co.uk. Remarkably, Sellbrite has achieved an impressive result, meeting **86**% of the requirements outlined in the guidelines.<sup>35</sup> This indicates a strong performance in terms of usability and user experience. The subsequent

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<sup>&</sup>lt;sup>35</sup> The results of the analysis are included in the documents attached to this report.

paragraphs will now highlight the most notable areas of improvement identified within Sellbrite's main sections.

### • Search Engine

One notable area for improvement in Sellbrite is the **absence of a search engine** in the navbar. Incorporating a search functionality prominently in the navigation bar would allow users to quickly search for specific features, settings, or help documentation within the platform. This would enhance the user experience by enabling users to locate desired information more efficiently.<sup>36</sup>

Additionally, while Sellbrite does offer a search engine within the listings of products, it could be further improved by providing suggestions or **error feedback** when users encounter search errors.<sup>37</sup> This would help users refine their search queries and find the desired products or information more effectively.

#### Sitemap

Furthermore, the inclusion of a website map, or **sitemap**, would provide users with a comprehensive overview of the platform's structure and navigation hierarchy, enhancing their understanding and facilitating easier exploration.

# Cart and Checkout page

Sellbrite received lower scores in the cart and checkout page areas according to the userfocus.co.uk analysis. However, it should be noted that Sellbrite's focus is on multi-channel e-commerce management rather than directly handling the cart and checkout process. These lower scores are due to the **absence of cart and checkout pages** within the website, as users typically utilize other e-commerce channels for those functionalities. Despite this, Sellbrite remains a valuable tool for streamlining product listings, inventory, and order management across multiple platforms.

userfocus.uk.co guidelines section: Search usability, guideline 5, 6, 9, 13, 19, 20,.

userfocus.uk.co guidelines section: *Homepage*, guideline 2, and userfocus.uk.co guidelines section: *Search usability*, guideline 12, 14.

#### **REVERSE ANALYSIS: GUIDELINES VS SYSTEM**

As done for Etsy, we will now address the remaining main issues identified by comparing the guidelines with Sellbrite.

#### Homepage and task orientation

The homepage of Sellbrite showcases a clean and well-organized layout with a clear hierarchy, effectively guiding users' attention to the main sections located at the center of the page. The additional information is thoughtfully placed on the lateral sides, creating a balanced design. A notable advantage is that users have the flexibility to **customize** this organization based on their preferences.

By default, the layout suggests a task order that supports a **logical** workflow, ensuring users can easily navigate through the essential features and functionalities. This thoughtful organization of the homepage provides users with a visually pleasing and user-friendly experience, facilitating efficient task completion and contributing to an overall positive user journey within Sellbrite.

# Navigation & IA

These aspects have already been addressed in the previous sections with a specific focus on the absence of a sitemap and possible improvements regarding the search engine.

#### 2.2. USER TESTING

#### 2.2.1. TESTING PROTOCOL

With the aim of acquiring user feedback regarding the website Etsy and Sellbrite, we performed a series of **discount usability tests**. We selected three participants from our target demographic. Discount usability testing is a cost-effective and efficient method and allowed us to examine the experience of our target users on these platforms. Participants were selected to ensure **diversity** in terms of gender and level of **internet trust**:

- Interviewee C 73-year-old female participant, a retired high school teacher who does not enjoy nor particularly trust online shopping and mainly uses Amazon for her purchases. She is unfamiliar with online selling and has never used the Etsy and Sellbrite platforms. In her free time, she enjoys painting.
- Interviewee E 70-year-old female participant, a retired high school teacher who is familiar with online shopping across various platforms. She enjoys sewing and fabric-related activities, often drawing inspiration from Pinterest and occasionally from Etsy. However, she does not have any experience in online selling and is entirely unfamiliar with the Sellbrite platform.
- Interviewee G 66-year-old male participant, a retired engineer with experience in online shopping but not familiar with online selling. His hobby is woodworking. He is entirely unfamiliar with both the Etsy and Sellbrite platforms.

The test comprised six tasks, three to be executed on Etsy and the remaining three on Sellbrite. Participants were asked to **think aloud** while performing each task, expressing their thoughts, opinion or reasoning process.

#### **ETSY**

- Registering on Etsy and setting up a selling account:
   participants were instructed to register on Etsy and establish a
   selling account, following the entire registration process until they
   reached the page for creating their first listing.
- 2. Creating a Listing: Participants were instructed to create a listing by entering only the mandatory information. After completing this task, they were required to save the listing and then return to the homepage.
- **3. Finding products for inspiration**: Participants were tasked with finding products similar to the ones they create, selecting one and adding it to their cart.

#### **SELLBRITE**

- Registering as a new user: Participants were required to register as new users and link their newly created Etsy accounts to the Sellbrite website.
- 2. Accessing the product list page: Participants were instructed to navigate to the page displaying their complete product listings. Once there, they were required to add a new product, inputting only the mandatory information. Following this, they were asked to save the listing and return to the product list page to verify the successful addition of the new product.
- **3.** Accessing customer support chat: Participants were requested to enter the chat to seek customer support.

The selected metrics to evaluate the results of the tests are:

- Task success: metrics indicating if participants were able to complete a given task.
- **Time on task**: metric measuring the time required by participants to complete or fail a given test.
- **Number of errors**: metric providing the number of errors a participant committed while trying to complete a task, allowing to highlight possible trends of errors in performing the given tasks.
- Satisfaction: metric giving information about the level of satisfaction of users while performing the tasks.

#### 2.2.2. TESTING PROCESS

Two tests out of three were conducted **remotely**, while one was conducted **in person**. In both cases, the same procedure was followed to ensure that the format of the user test did not influence the participants' experience. For remote tests, participants were guided through the set up of their electronic devices, granting the facilitator **access to their screens** and permission to record the session. Two out of three participants used their **tablet** to perform the test, while one used a computer.

To prevent the inclusion of sensitive personal information, participants were supplied with all the necessary details for the registration process.

**TEST RESULTS: INTERVIEWEE C** 

Etsy				
Task	Task success	Time on task	Number of errors	Satisfaction
1	Success with assistance	10:10 min	<ul> <li>* Newsletter subscription instead of sign-up.</li> <li>* Log-in instead of sign-up.</li> <li>* While looking for new shop selected "favorite articles"</li> <li>* Several unsuccessful attempts to find an available shop name and did not consider suggestions until the fourth attempt</li> </ul>	Normal: Mainly satisfied with the process of creating a new shop, while the initial registering process was rather frustrating.
2	Success with assistance	13:24 min	<ul> <li>Several attempts to save the first listing without checking missing data on the whole page.</li> <li>Attempt to write into an empty field not meant for text entry.</li> <li>Does not insert info in mandatory fields she considers redundant.</li> </ul>	Low: User was not satisfied with the task and felt frustrated. Not easy for her to get an overview of all missing fields.
3	Success	3:11 min	<ul> <li>Entered complete sentence as in browser search to seek help.</li> <li>Adding the selected article to cart did not succeed at first attempt since it required prior personalization.</li> </ul>	Normal: She found that the task required a high level of concentration

**Notes:** Interviewee felt frustrated due to the high amount of information required for input, showing low level of attention to details in the process. The unclear distinction between mandatory and optional fields caused confusion and several failed attempts during completion of the listing. She found that the procedures were not consistently straightforward and noted a lack of assistance, highlighting a problem of poor responsive error handling.

sellbrite				
Task	Task success	Time on task	Number of errors	Satisfaction
1	Failure (sign-up); second part succeeded with assistance	16:31 min	<ul> <li>Attempt to register through the log-in field. Several failed attempts, repeatedly checked password and email.</li> <li>Asked the system to reset the password. Did not notice the sign-up link at the bottom of the page.</li> <li>Attempts to continue without inserting required information.</li> </ul>	Low satisfaction: Frustration caused by unclear indications lead to abandoning the task. She found the process overly complicated.
2	Success with assistance	3:52 min	<ul> <li>First attempt of inserting a product by inserting product name in the filter search bar.</li> </ul>	High satisfaction: She found the task intuitive and quick, also compared to Etsy.
3	Success	6:0 min	<ul> <li>Attempt to search on Safari search bar.</li> <li>Attempt to search within Settings.</li> <li>Clicked on Help on the homepage; does not consider the right bottom page section with the chat icon.</li> </ul>	Low satisfaction: Chat was not easy to find due to lack of indications and unfamiliarity with feature; the icon was too small.

**Notes:** Interviewee was frustrated with the lack of clear instructions. Registration and channel connection processes were perceived as overly complicated. She tends to avoid reading text descriptions and suggested that buttons and links should be provided first, paired with a concise indication of their associated goals. Moreover, granting permission to an external platform to access information was successful but not a familiar process. Overall, the interviewee liked the Etsy website more and made it clear that she has no intention of using Sellbrite to monitor her products in the future.

**TEST RESULTS: INTERVIEWEE E** 

Etsy				
Task	Task success	Time on task	Number of errors	Satisfaction
1	Failure (required assistance to sign-up and find the link to open a new shop; procedure to create new shop was successful)	23:58 min	* Attempt to sign-up through log-in form. First thought is to check if the email was entered correctly. She then asked for support and mentioned that, at this point, she would have left the website. "Register" button was mistaken for a mere label.  * She used the search bar as a browser search bar and entered "how to sell on etsy".	Low satisfaction: Both the registration process and finding the link to create a new shop were challenging.
2	Success with assistance	12:36 min	<ul> <li>Search bar with requirement of selecting a category: she input text but did not wait for categories list to select one.</li> <li>Empty space mistaken for entry field (as in previous interview).</li> </ul>	Low satisfaction: Several attempts of saving form, frustration for lack of clarity in labeling mandatory fields and missing information.
3	Success	2:29 min	<ul> <li>Adding to cart was not successful at first attempt, since the purchase required personalization.</li> </ul>	High satisfaction

**Notes:** Interviewee found that Etsy is strongly oriented towards buyers, since the button "start selling on Etsy" was not easy to find. Sight issues and difficulties in reading small text led to errors. Priority among different functionalities was not clear while completing the first insertion: highlighted buttons that are not helpful to complete the task distracted the user, who selected them without reading related text.

sellbrite				
Task	Task success	Time on task	Number of errors	Satisfaction
1	Success with assistance (sign-up); second part of the task not possible due to visualization issues	12:20 min	Typing error when inserting email, not recognised due to text size.	Normal satisfaction: Task was partially completed but visualization had a really poor quality.
2	Not possible	Not applicable	Not applicable  The task was not completed due to visualization issues of the website.	Low satisfaction: Due to visualization issues and overwhelming content.
3	Success with assistance	1:24min	None Visualization issues influenced the difficulty of the task, which however was performed quickly.	Low satisfaction: Due to the high amount of information and poor visualization of website.

**Notes:** Interviewee found the website overly complex and the fact that it was different from Etsy was confusing. The amount of information was confusing. The website was perceived as too technical.

# **TEST RESULTS: INTERVIEWEE G**

Etsy				
Task	Task success	Time on task	Number of errors	Satisfaction
1	Success	9:59min	<ul><li>1</li><li>★ Attempt of registering through log-in form.</li></ul>	Normal satisfaction: succeeded even if did not follow the most immediate paths.
2	Success	9:36 min	* Attempted to save form before completing mandatory fields. Did not distinguish clearly between mandatory and optional information.	Normal satisfaction
3	Success	8:21	<ul> <li>Added to cart without personalizing, struggled to find the reasons why it did not work.</li> </ul>	Normal satisfaction

**Notes:** The user seeked help in the manuals and guidelines for almost all tasks. This allowed him to complete the tasks even if following a longer and more complex path. He complained about the lack of assistance when inserting information about product prices and shipment options.

#### sellbrite Task Time on Task Number of errors Satisfaction task success Success 4:31 min None Low satisfaction: 1 The website was in english and required automatic translation. 3:38 min None Normal 2 Success satisfaction: Finding the "Add product" button was not immediate due to small text size.

3	Success with assistance	4:05 min	<ul> <li>Selected guidelines, then accessed Facebook chat instead of platform chat.</li> </ul>	Low satisfaction: Showed difficulties in finding the chat icon.
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**Notes:** Most tasks were completed quickly by the user, however he encountered difficulties in finding chat due to the unfamiliarity with the chat icon on the website and its location. User tends to look for information in the menu and upper section of the page.

#### **SUS RESULTS**

Etsy					
Questions	Interviewee C	Interviewee E	Interviewee G		
I think that I would like to use this system frequently.	3	2	2		
I found the system unnecessarily complex.	3	5	3		
I thought the system was easy to use.	3	2	3		
I think that I would need the support of a technical person to be able to use this system.	5	5	4		
I found the various functions in this system were well integrated.	3	3	4		
I thought there was too much inconsistency in this system.	3	4	2		
I would imagine that most people would learn to use this system very quickly.	4	1	3		
I found the system very cumbersome to use.	3	5	3		
I felt very confident using the system.	2	1	2		
I needed to learn a lot of things before I could get going with this system.	3	3	3		
SUS Total	45	17.5	47.5		
Average	36.6				

sellbrite					
Questions	Interviewee C	Interviewee E	Interviewee G		
I think that I would like to use this system frequently.	2	1	2		
I found the system unnecessarily complex.	2	5	3		
I thought the system was easy to use.	1	1	3		
I think that I would need the support of a technical person to be able to use this system.	5	5	4		
I found the various functions in this system were well integrated.	2	2	2		
I thought there was too much inconsistency in this system.	3	4	2		
I would imagine that most people would learn to use this system very quickly.	3	2	3		
I found the system very cumbersome to use.	5	5	3		
I felt very confident using the system.	1	1	2		
I needed to learn a lot of things before I could get going with this system.	2	5	2		
SUS Total	30	7.5	45		
Average	27.5				

#### 2.2.3. ANALYSIS OF RESULTS

Overall, the user experience for all three participants on both websites could be described as **confusing** and occasionally **frustrating**. Features that might appear more intuitive to users familiar to similar platforms and web usage in general were **not readily** understandable by our intended users. On both platforms, they encountered difficulties reaching the "sign-up" form, often mistaken with the "log-in" form. Neither website offered additional indications on the required procedure.

The **Etsy** website delivered a moderately better user experience across all three tests, as evidenced by users satisfaction and the scores from the SUS questionnaire. However, the platform was occasionally perceived as ambiguous and confusing. Users faced challenges during the **sign-up process**, as it was assumed by the platform that they could distinguish between the "Log-in" and "Register" concepts (**E1**). In case of a failed attempt, there was no feedback advising users that they may need to register first. Additionally, users encountered difficulties locating the link to create a new shop, located in a drop down menu (**E2**).

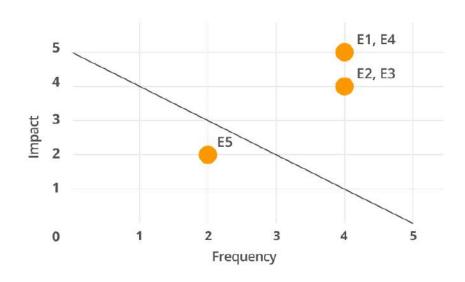
On the **positive** side, the process of creating a new shop was generally well-received and completed quickly. It followed a step-by-step approach, posing one question at a time and providing multiple choice options in a large font size. However, the creation of a new listing on Etsy was perceived as a time- and energy-consuming procedure. Users felt **overwhelmed** by the volume of required information and struggled to differentiate between mandatory and optional fields (E3); the same error occurred when users were requested to add an article to the cart without the required personalization. They attempted to save the listing several times before completing the task successfully (E4). In general, although required data was indicated, alerts should be made more visible as they are often overlooked. On multiple occasions, participants used the product search bar as if it were a browser search bar, attempting to seek assistance (E5).

Users expressed dissatisfaction with their experience on the **Sellbrite** platform. The website is only available in English, requiring an automatic translation before starting the test. Similar to their experience with the Etsy website, users had trouble signing-up on the platform, confusing the log-in form with the sign-up form (**E6**). When asked to add a new product, users primarily focused their attention on the filtering tool located on the left side of the page, overlooking the "add product" button positioned on the right (**E7**). Overall, users felt overwhelmed by the information on the page and had difficulty locating the chat (**E8**), failing to recognize the icon.

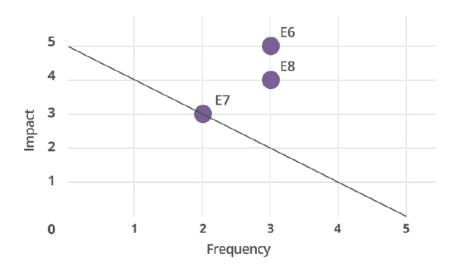
#### **URGENCY CURVE**

The following **frequency-impact urgency curve** represents the results obtained in the user testing process. We define the impact of an error based on the time required to perform the related task and the satisfaction related to it as expressed by users.

**Etsy: Urgency Curve** 



**Sellbrite: Urgency Curve** 



#### 2.2.4. CONCLUSION

In summary, the experience on both the Etsy and Sellbrite websites was **not satisfying** for the participants in the user tests. They expressed frustration due to the **lack of clear instructions** and feedback from platforms, as well as the overwhelming visual elements presented.

The user testing process revealed that while these websites might be considered user friendly by other target demographics, they do not align with the needs and preferences of our specific user group.

Enhancing user experience can be achieved by adding more visible and consistent instructions and **user-focused feedback**. The language used should be plain and accessible to ensure that users with different levels of digital literacy can easily interact with the platform. Furthermore, users appeared to prefer **step-by-step processes** and multiple choice options over scrolling through a single lengthy page to input information. It is advisable to use icons sparingly, as our selected target demographic tends to focus on **larger text**, which should be prioritized. Font size also appeared to be an issue, with some users encountering difficulties reading smaller instructions.

Including a wizard functionality on our platform could be beneficial for first-time users, as it would help them discover different sections of the website. However, it is fundamental to ensure that users are not overwhelmed by the information presented on the page.

Overall, It is essential not to assume that information that might appear obvious to average users is equally clear to all. The design of our new platform should prioritize **clarity** and **visibility** in providing instructions. Moreover, **simplicity** and **accessibility** are fundamental for a satisfying user experience. Finally, a **step-by-step navigation approach** would simplify user interactions and enhance their experience on the platform.

# 3. FEASIBILITY STUDY

Conducting a feasibility study is essential to assess the viability of developing and implementing of our platform, Ruel. To maintain our user-centric perspective, our analysis will primarily focus on the following aspects:

- The context of use: to understand the environment and potential circumstances in which our product will be utilized.
- 2. Scenarios: to capture common use cases and highlight both typical and critical situations, allowing us to assess the practicality and effectiveness of our service.
- 3. Personas: to gain a deeper understanding of our users' needs, motivations, and goals, enabling us to tailor our service/product to their specific requirements.

#### 3.1. CONTEXT OF USE

In today's rapidly evolving digital landscape, bridging the gap between creative expression and online engagement is critical. And no one should be left out. From our user segmentation and subsequent targeted interviews, we identified a population with **specific needs** and limitations.

In fact, our application aims to empower retired people aged **60 to 75** in Italy, allowing them to share their artistic creations, connect with like-minded people and explore new opportunities, all while enjoying a user-friendly and socially enriching platform.

#### 3.1.1. INTENDED USERS

After carefully analyzing our user segmentation and interviews, we can confidently outline that our target users are **retired people** with a wide range of professional backgrounds, from teachers and healthcare workers to office professionals. Their interests are deeply rooted in **creative activities**, encompassing various forms of art, craft and design. Located in suburban areas, smaller towns and regions with active senior centers, they value both artistic pursuits and social connections.

#### 3.1.2. INTENDED TASKS

 Getting Started: Users can easily navigate the system through a wizard or guided tour, ensuring a smooth onboarding process for first-time users.

- 2. Profile Management: Creating and managing private profiles allows users to curate their virtual exhibitions, showcasing their portfolio and establishing a personalized online presence.
- 3. Selling Artwork: The platform facilitates the process of selling creations, enabling users to connect with buyers who appreciate their unique artistry and value their work.
- **4. Browsing Artistic Creations**: Users can access the homepage to browse suggested items, explore the entire shop, and engage with a wide range of creative expressions.
- 5. Community Engagement: Through themed contests, announcements, and community activities, users can participate, collaborate, and interact with other retirees who share their artistic passions.
- **6.** Learning and Growth: Access to tutorials, workshops, and courses tailored to artistic interests empowers users to continuously develop their skills and expand their creative horizons.
- 7. Staying Informed: Users are kept updated about art-related events, exhibitions, and gatherings within their local and online communities, enhancing their sense of connection.

#### 3.1.3. ENVIRONMENTAL AND TECHNICAL CONSTRAINTS

Our platform has been designed to address the specific needs and preferences of our users, providing tailored solutions that cater to their comfort and convenience. Through our application, retired individuals can seamlessly use both smartphones and computers to engage in various tasks, offering flexibility and accessibility. We understand their value for comprehensive resources, and our platform offers a wealth of information and tools that **enhance both their creative and selling experience**. By offering a user-friendly interface and clear instructions, we ensure that our users can confidently navigate the platform and manage their artistic pursuits. Our responsive **customer support** further addresses any concerns they may have, providing timely assistance and instilling trust in the platform's reliability.

Moreover, we recognize the diversity of language skills among our users, who may speak different dialects or languages in addition to Italian. Our platform aspires to incorporate clear communication channels that accommodate these language variations, enabling effective interaction and ensuring that all users can connect and engage without language barriers. Through these thoughtful considerations and solutions, our product aims at enhancing the user experience and fostering a sense of community among retirees with shared artistic interests.

# 3.2. PERSONAS







AGE	71 yo		
OCCUPATION	Former teacher with a passion for creating handcrafted jewelry		
CHARACTERISTICS	Skeptical about technology, values privacy and personal connections		
GOALS	To explore online platforms for selling her jewelry while overcoming her reservations about technology		
PAIN POINTS	Concerns about online security, unfamiliarity with technology		



# 3.3. SCENARIOS

## 1. ELENA'S SCENARIO:

#### CONNECTING WITH THE CRAFTING COMMUNITY

Elena, a retired nurse and passionate crafter, is excited to explore her creative interests and connect with fellow crafters during her retirement. She loves working on various craft projects but has been struggling to find a local crafting group that aligns with her interests and schedule. Feeling **isolated** from the camaraderie she once experienced with her colleagues in the healthcare field, Elena is determined to find a platform that can help her connect with a community of like-minded individuals who share her passion for crafts.

One evening, as she sits down with her tablet gifted by her nephews, Elena comes across an art and crafting application, Ruel, specifically designed for retirees with creative hobbies. Intrigued, she decides to access the platform and create her profile. She meticulously fills in her background as a retired nurse, along with her newfound enthusiasm for various crafts. Elena also **uploads pictures** of some of her recent knitting and sketching projects, which she has learned to do from her nephews, who encouraged her to explore different artistic mediums.

As she navigates through the website, Elena is excited to discover a thriving **community** of fellow retirees who are equally passionate about crafting. She engages in discussions, sharing her insights about combining knitting techniques with sketching, which she finds a relaxing way to express her creativity. Elena is **inspired** by other users' projects, from intricate embroidery to hand-painted ceramics, and she's thrilled to have found a place where her talents can be appreciated.

Encouraged by the warm responses and connections she's making, Elena decides to participate in a themed contest organized by the app's community. With her tablet by her side, she sketches a unique design that beautifully combines her nursing background with her newfound love for crafts. She's amazed by the support she receives and enjoys giving feedback on others' projects as well.

Through Ruel's platform, Elena starts engaging in **conversations** with individuals who appreciate her creativity and value her nursing experience. She not only learns new techniques but also shares her insights into the therapeutic benefits of crafting, drawing from her medical background. Elena receives an invitation to a virtual crafting event, where she showcases her knitting-sketching fusion technique and connects with others who share her interest.

The application becomes Elena's go-to platform for creative exploration, giving her a renewed sense of community and purpose during her

retirement. Elena's tablet, which initially served as a gift from her nephews, now becomes a window to a world of inspiration and connection. She continues to use it to sketch designs, explore different crafts, and interact with a community of fellow crafters who share her passion.

## 2. LUCA'S SCENARIO:

### **CRAFTING FOR FAMILY'S FUTURE**

Luca is no stranger to life's challenges. Throughout his years, he's held various jobs and ventured far and wide in search of opportunities and fortune. His life experiences have made him adaptable and resourceful, traits that he's carried with him into retirement. Now in his seventies, Lucas has found solace and joy in crafting **woodwork** projects in his small garage-turned-workshop.

Over the years, Luca has created everything from furniture to intricate decorations, each piece a testament to his skilled craftsmanship. He's learned to adapt and innovate, just as he did during his travels and work experiences. Despite his rich life experiences, technology and the internet have always been somewhat **foreign** to him. However, he's never shied away from learning something new.

Recently, Luca's family has encountered financial difficulties, and he's once again motivated to contribute. He's determined to find a way to support his family and create a brighter future for them. As he crafts woodwork projects in his garage, he ponders the idea of using his skills to **generate income**.

One day, Luca's grandson visits him and shares news of an art and crafting website, Ruel, tailored for retirees like him. The app promises a platform for showcasing and **selling artistic creations**, along with resources to help users market their work effectively. Intrigued by the possibilities, Luca decides to embrace technology and give Ruel a chance.

Luca sets access to the platform on the main computer in his house, taking his time to navigate through the interface and create his profile. He uploads **images of his woodwork pieces**, accompanied by descriptions that reflect his passion and dedication. While he may not be an internet expert, Lucas's adaptability shines through as he learns to navigate the website with curiosity and determination.

As he delves deeper into Ruel's functionalities, he's positively surprised and delighted to find a community of like-minded crafters who value and appreciate his skills. Luca decides to list some of his woodwork pieces on the platform's **marketplace**, showcasing the various techniques he's mastered over the years.

As orders start coming in, Luca finds himself eagerly checking his phone while working in his garage. He appreciates the convenience of using his phone, which he finds more accessible as he moves around his workspace. The app's **notifications** keep him updated on customer inquiries and orders, and he enjoys engaging with potential buyers to discuss their preferences and requirements.

With each sale he makes, Luca feels a renewed sense of purpose and pride. The additional income generated from his woodwork sales provides a meaningful contribution to his family's financial situation. Lucas's resourcefulness and adaptability shine through as he navigates the world of online selling and connects with customers who appreciate his craftsmanship.

As he continues to create, connect, and contribute through the website, Luca not only finds a way to ease his family's financial burdens but also discovers a newfound sense of community and fulfillment. His journey with Ruel reflects his lifelong resilience and adaptability, as he once again embraces change to create a brighter future for his loved ones.

# 3. MARIA'S SCENARIO:

## **OVERCOMING INITIAL SKEPTICISM**

Maria, a retired teacher with a passion for creating intricate handcrafted jewelry, has always preferred **traditional methods of selling** her creations at local craft fairs and markets. She's been considering exploring online platforms to reach a wider audience, but her skepticism about technology and concerns about online security have held her back.

One day, while chatting with a friend, Maria learns about an art and crafting platform designed for **retirees with creative interests** called Ruel. Intrigued but hesitant, she decides to open the website on her tablet and explore its features. She's initially overwhelmed by the thought of navigating a digital platform.

Maria starts by browsing through Ruel's tutorials and resources, focusing on the section about selling crafts online. Despite her reservations, she's pleasantly surprised by the clear and **step-by-step instructions** that guide her through the process. She appreciates the visuals and straightforward language that make the information accessible even to someone with limited technology experience.

As Maria explores further, she discovers the customer support feature and decides to reach out with her concerns about online security. She receives a prompt response from the customer support team, assuring her that the platform prioritizes user privacy and employs advanced security measures.

Encouraged by the supportive response, Maria decides to take the plunge and list a few of her handcrafted jewelry pieces on the platform. She follows the Ruel's guidance to take **high-quality photos** and craft compelling descriptions for her items. With each step, she gains a sense of accomplishment and excitement.

As her listings go live, Maria starts receiving inquiries and messages from potential buyers through the platform's messaging feature. She's initially unsure about how to respond but finds the website's interface user-friendly and **intuitive**. She engages in conversations with potential buyers and learns how to navigate the site's various features.

Over time, Maria gains confidence in using Ruel to manage her online sales. She's pleasantly surprised by the convenience of receiving notifications on her tablet and checking messages from interested buyers. She even decides to explore the platform's **community section**, where she discovers discussions about jewelry-making techniques and connects with fellow artisans who share her passion.

Through the website, Maria not only begins to sell her jewelry online but also overcomes her skepticism about technology. The **tutorials**, customer support, and user-friendly interface provide her with the tools she needs to embrace online selling while maintaining her privacy and personal connections. Maria's journey demonstrates how even those who are initially skeptical about technology can find success and fulfillment by using a platform that addresses their concerns and provides a supportive environment for learning and growth.

## 4. MARCO'S SCENARIO:

### FROM ENGINEER TO ONLINE ARTISAN

Marco, a retired (electrical) engineer, has spent his entire career observing strict rules, following guidelines and meticulously examining every detail of complex systems. This was not only due to his nature, but also required by his profession, which mainly revolved around analytical thinking and logical problem-solving.

During retirement, Marco found himself missing the **mental challenges** and structured environment he had experienced throughout his whole career. He longed for an opportunity to revive his interest in technology, but the rapidly evolving digital landscape left him feeling overwhelmed.

One day, while browsing online for some materials, Marco came across a targeted ad for Ruel, an arts and crafts **application** designed for retirees with creative interests. Intrigued by the possibility of reaching a wider audience for his **oil paintings**, he decides to explore the platform, even though the prospect of navigating a digital platform is daunting.

Marco's digital journey begins when he accesses the website on his PC and takes his first tentative steps. He appreciates the **clear and concise instructions** provided by the platform, which make it easier for him to understand its features. As a meticulous person with a rule-oriented mindset, he values clarity and precision.

While exploring Ruel, Marco discovers a customer support feature and decides to contact it with his questions about the platform's sales process. To his relief, he receives a prompt response from the platform's dedicated customer support team. They patiently walk him through the steps, address his concerns, and reassure him of the platform's ease of use.

Encouraged by the **supportive response**, Marco decides to start listing some of his paintings on the platform. He follows the instructions to take high-quality photos of his creations and write descriptions as detailed as possible. As his listings go live, he begins to receive his first inquiries and messages from potential buyers through the site's messaging feature.

Through the platform, Marco not only embarks on a successful journey of selling his artworks online, but also overcomes his initial **skepticism** of the technology. The clear instructions, responsive customer support and easy-to-use interface give him the tools he needs to embrace online selling while maintaining his meticulous, rule-driven approach. Marco's story illustrates how even people with limited recent exposure to technology can find success and fulfillment using a platform that **addresses their concerns** and fosters a supportive environment for learning and growth in the creative world.

# 4. DESIGN PROPOSAL

In developing Ruel, we decided to adopt a unique design approach that strikes a balance between **linear progression** in the website's hierarchy, and a **guided learning experience**. Our goal was to develop a user-friendly and adaptable platform that meets the needs of our target audience of retirees and older citizens, who represent a varied range of backgrounds, tastes, and technology experience/familiarity with technology.

This mixed approach ensures that users have the freedom to explore and engage with the platform **at their own pace** while also feeling supported and encouraged along the way.

#### GOALS:

As already explored in the previous section, the primary purpose of Ruel is to provide a dedicated platform for retirees and seniors who are passionate about art and crafting. It aims to **empower** them to showcase their creativity, engage with a like-minded community, and sell their artworks with supporting tools.

Therefore, general long-term goals can be therefore outlined as:

- To create and foster a lively and supportive online community for retirees with artistic interests, aiming to become the go-to platform for this demographic;
- To facilitate the selling of user-created artworks, thereby enabling users to generate income from their craft, while also encouraging them with time to continually improve the quality of their content to attract a wider audience:
- To provide access to educational resources, tutorials, and workshops that foster continuous learning and skill development;
- To keep users engaged through themed contests, discussions, and event notifications;
- To continue improving the platform's accessibility for seniors, taking into account their unique needs and preferences. Regularly update the interface to accommodate changing technologies and user expectations.

On a more practical side, looking at short-term goals, we considered:

- To acquire a critical **mass of users** within the target demographic, which may involve marketing campaigns, partnerships with retirement communities, and word-of-mouth referrals;
- To ensure that new users can easily sign up, create profiles, and start using the platform should be a priority. A seamless onboarding process will reduce user drop-off rates;

- To encourage users to start uploading and sharing their artistic creations as soon as possible. This will help populate the platform with content and attract more users;
- To promote **engagement** among users through the platform's communities where activities like discussions, themed contests, and interactive events are encouraged.
- To gather **feedback** from early users to identify any usability issues, bugs, or areas for improvement. Use this feedback to make rapid enhancements to the platform.

#### **TARGET:**

The platform's primary target audience is retirees and seniors (age 60+) who have a passion for art and crafting, seeking a sense of community, creative expression, and potential income generation. Secondly, we have also taken into consideration caregivers, family members, and friends of retirees who may be interested in exploring the platform or assisting retirees in using it.

Retirees should choose Ruel because it offers a **tailored platform** designed to meet their unique needs and interests. It provides a safe, user-friendly environment for showcasing their creativity, connecting with peers, and learning new skills. With features like the **Marketing Guides** and premium ad placements, it also offers opportunities for possible income generation.

#### **CONTENT STRATEGY:**

Content on Ruel will include a diverse range of media, encompassing both platform-generated and user-generated content. Users will have the opportunity to contribute their own content featured in two primary sections: the **Marketplace**, showing products added to their own Personal Section, and the **Community**.

Regarding the legal aspects of content, Ruel will prioritize compliance with copyright and intellectual property laws. Users will be encouraged to respect copyright regulations when uploading and sharing content. The platform will implement mechanisms to report and address any copyright infringements promptly. Moreover, Ruel will provide guidelines and **educational resources** to users on copyright awareness and responsible content sharing.

#### **BUDGET:**

Securing financing for this project, specifically in Italy, could involve entities who share the same interest in the **enhancement of the quality of life for retired individuals**, supporting their well-being and empowerment through more social inclusion, digital literacy, and creativity. The potential sources of budgeting and support are

represented by government grants and subsidies, private investors and companies with strong corporate social responsibility (CSR) programs, crowdfunding campaigns, academic and research institutions, community and senior centers, strategic alliances with industry partners, aging and healthcare organizations, and exploring EU funding programs.

#### **ECONOMIC MODEL:**

The application operates on a **freemium model**, designed to cater to the diverse needs of our users. Basic access to the platform is provided to all users, ensuring that anyone can create a profile, join the platform's vibrant community, and list a limited number of artworks for sale. To further enhance the experience, we offer on the other hand an exclusive premium version tailored for those users looking to take their artistic endeavors and business goals to a more serious level.

While all users, including those with free accounts, have access to our tutorials and Marketing Guide, the premium subscription unlocks a world of **advanced insights and resources**. These additional premium lessons delve deeper into the art of selling online, providing valuable strategies for those who aspire to excel in the digital marketplace. Premium subscribers also enjoy other **exclusive benefits**, including boosted seller profiles, top placement in search results, and other advantageous marketing opportunities.

This alternative version is based on a monthly subscription basis, and regular users can choose at any given time to upgrade to access these features. Moreover, this freemium model, combined with premium features and strategic ads' placement, will contribute to the economic sustainability of the platform.

#### **DESIGN TOOL**

We found **Figma** to be the ideal choice as our design tool for a combination of product-related and team-related reasons, recognizing the interconnectedness of these aspects and the potential impact on our project's success. Here's the <u>Link</u> to our Figma's workspace.

From a teamwork perspective, Figma's **collaborative features** played a pivotal role. The ability for us to work simultaneously on the same project and within the same environment in real-time streamlined our workflow, fostering efficient communication and reducing potential delays.

Moreover, Figma's robust design tools and extensive library of plugins greatly enhanced our productivity. We harnessed these features to create smarter **wireframes**, refine graphical elements, and optimize the user experience.

# 4.1. INFORMATION ARCHITECTURE

In our design process, we initially outlined the individual components of our platform. We adopted a **bottom-up strategy** by delineating each component before interconnecting them to build the overall architecture of our website. Based on previous research and discussions, we identified the following **core sections** at the heart of our platform:

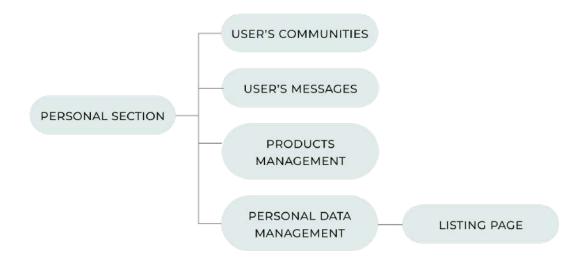
- Homepage: Ruel's homepage encourages users to explore the different sections of the website, with links to its main component. The homepage design is consistent for both new and returning users, and new users are guided through the website navigation using a wizard component.
- Marketplace: Users interested in buying products are directed to the product browsing section, featuring different search aids such as the search bar and product suggestions. All page elements are labeled according to their function, and search examples are provided. Users can access product pages and seller profiles after performing a product search.
- Personal Section: This section serves as a user dashboard, providing access to different subsections. This gradual access approach minimizes page saturation with confusing content, addressing the frustrations of our target users. The dashboard includes the following sections:
  - Personal Data Management: Allows users to visualize and edit personal data entered during the registration process.
  - **b. Products Management**: Provides an overview of all product listings, and enables users to manage their listings, including accessing sales history.
  - **c. User's Messages**: Users can access and respond to private messages from other sellers.
  - **d.** User's Communities: Displays communities the user is a member of, similar to the Messages Section structure. Users can also access the Community Search Section to discover new communities of their interest.

## • Ruel's Guides:

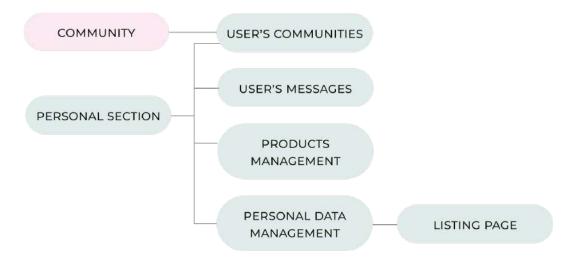
- a. Marketing Guides: Organized by topic, this section provides an overview of Ruel's marketing guides. Users can search for specific topics using the search bar or select suggested topics. Each guide includes a video tutorial and a text with customizable font size.
- **b.** How to use Ruel: Section with the aim of guiding users in the navigation of the platform, with a brief introduction to its functionalities. This series of tutorials is also accessible from the Help Center.

- Community: This section allows users to search and access communities on the Ruel platform, using a search bar or selecting from suggestions. Communities related to the website's main topics and activities are provided and managed by Ruel. Users interested in creating a new community can access a request form from this section.
- **Help Center**: Accessible from every page of the website, the Help Center includes the following subsections:
  - a. FAQ: Section including answers to frequently asked questions.
  - **b.** Personal Assistance: Provides contact information for users to reach out to the platform's customer service through various channels.
  - **c. Documentation**: A comprehensive guideline for users seeking in-depth information about the platform.
- **About**: Provides an overview of the platform's mission and vision, and a brief introduction to the founders and Ruel's core values.

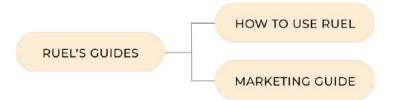
In designing the platform Ruel we chose to emphasize a **linear** user design approach, to make the navigation on the platform as intuitive and user-friendly as possible. We began by outlining each section individually, then structuring our website with a logical hierarchy. Our website architecture considers each seller's "**Personal Section**" as one of the foundational elements, which includes four subsections. This deliberate separation of sections allows users to focus on one concept at a time.



Furthermore, the "User's Community" subsection is also accessible from the "Community" section, which shares the same hierarchical level as the Personal Section.



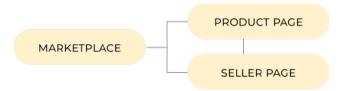
At the upper hierarchical level, we introduce the "Ruel's Guides" section, which comprises two subsections: the "Marketing Guide" and the guide on "How to Use Ruel".



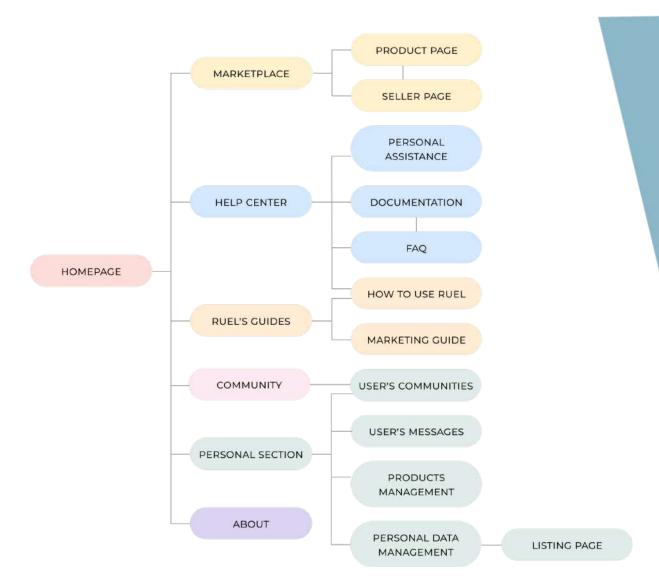
The How to Use Ruel tutorials section is also accessible from the "Help Center", which, like the other sections mentioned, is placed at the upper hierarchical level. It includes four subsections, each providing various forms of customer support.



Lastly, another integral component of our website architecture is the "Marketplace", which is located at the same hierarchical level as the Personal Section, the Community, "Ruel's Guides", and the "Help Center". Within the "Marketplace", users can explore two subsections: the "Product Page" and the "Seller Profile".



In summary, the "Personal Section", the "Community", "Ruel's Guides", the "Help Center", and the "Marketplace" all share the same hierarchical level, and they are easily accessible from the platform's homepage. The "About" section completes this hierarchical level. The information architecture of the Ruel platform is depicted in the following image, providing a comprehensive overview of its structure.



The adoption of this linear and gradual structure aims at **minimizing confusion and distraction**, allowing our target users to focus on a limited number of tasks and navigate one concept at a time. This user-centric approach ensures that our audience can comfortably and confidently engage with our platform.

# 4.2. CAO=S

In our design approach, we employed the **CAO=S model** (Concepts, Actors, Operations, Structures). This choice was driven by practical considerations related to the constraints/limitation of this project, but also by the designing advantages of this paradigm. The CAO=S model, in fact, provides a structured and user-centered methodology for the creation of complex systems. In the next subsections, we will start by establishing conceptual clarity, then focus on user interactions, analyzing the actors involved, and lastly map all the operations. This will eventually lead to a well-structured system design.

### 4.2.1. CONCEPTS

In the CAO=S design model, concepts are the fundamental building blocks that represent the core ideas and elements of the system. In the context of our application for retirees with creative interests, here are some key concepts that could be relevant:

- User's Personal Section: Individual user's account on the platform, including personal information and settings. Allows users to manage their personal data and customize their experience.
- 2. User Public Profile ("Vetrina"): Digital representations of the platform's users, where they can provide information about themselves, showcase their creative works, and connect with others. Users can visit these profiles to discover other sellers' artworks.
- 3. Handcrafted Creations: This concept includes various forms of artwork and crafts that users can create and share on the platform. It encompasses paintings, sculptures, knitted items, woodworking projects, and more. Details about these products are included in users' listings. Users are expected to manage product listings on their personal section.
- 4. Marketplace and External E-commerce Platforms: This concept involves the platform's e-commerce functionality, allowing users to list their artistic creations. Products are on sale on external platforms, such as Etsy or eBay to reach a broader audience of potential buyers who appreciate and value their work.
- **5. Community**: The community concept is the social component of the platform, where users can connect with individuals with similar

- interests, engage in discussions, participate in contests, and share thoughts and experiences related to their creative interests.
- **6. Private Messages**: Private messages enable users to communicate privately for product-related inquiries or simply to connect with other sellers to share their experience.
- Learning Resources: Refers to tutorials, workshops, courses, and other educational materials that provide users with opportunities for continuous growth and improvement in their artistic endeavors.
- **8. User Support**: This concept comprises all resources and channels available to assist users in the navigation. It includes answers to FAQ, documentation on the platform, customer service contacts and a support team.
- Feedback and Improvement: Concept referring to the possibility for users to provide feedback and share ideas for the improvement of the platform.
- 10. Payment: Concept related to secure transactions between buyers and sellers.
- Shipping and Logistics: This concept refers to the necessity of managing packaging and deliveries with the assistance of the platform.
- **12. About**: The concept referring to the information about the platform, including its mission, vision, and founders.

### **4.2.2. ACTORS**

The actors, on the other hand, represent the **entities** or users who **interact with the system** and perform various actions within it. For our application tailored to retirees with creative interests, here are some potential actors, with their own set of roles and responsibilities:

- User (Retiree/Seniors/Content Creators): This is the primary actor.
  Users create profiles, list items for sale, buy in turn, and engage in
  various platform activities. They also benefit from the platform's
  support, tutorials, and community initiatives.
- 2. Platform Administrator: The platform administrator is responsible for managing and maintaining the application. They oversee user accounts, ensure the system's functionality, and address technical issues and concerns.
  - a. Tutorial Creators (Platform Team): These actors are part of the platform team and are responsible for developing and publishing tutorials, workshops, and courses on the platform's Academy section. They contribute to the learning resources available to users, fostering their artistic skills and knowledge.
  - **b. Customer Support (Platform Team)**: Customer support actors are part of the platform team and assist users with

- their inquiries, concerns, and technical issues. They provide responsive and helpful guidance to users through chat, email, or phone support channels.
- c. Community Managers (Platform Team): Community managers are responsible for planning, organizing, and facilitating community activities and contests within the platform. They engage with users to create a vibrant and collaborative environment.

## 4.2.3. OPERATIONS

In the CAO=S framework, operations align with the **CRUD** model, which stands for Create, Read, Update, and Delete, operations that the system should be able to perform.

We use a table to identify specific tasks performed by different actors in relation to various concepts. This representation allows us to grasp how actor roles intersect with particular CRUD operations across various concepts within our platform. In our context, we consider the **end user** as the only actor, thus we use a single table to show these interactions.

The concepts "User Support", "Feedback and Improvement", "About" are not included in the CRUD analysis since they involve contents and functionalities that support the overall user experience rather than being strictly related to data management.

Concept	Create	Read	Update	Delete
User's Personal Section	Users should be able to add and manage their personal information easily.	Users should be able to access and retrieve their personal information quickly from their profile section.	The website should provide users with a straightforward way to update personal data, also including profile picture and setting.	Users should be able to delete their profile if necessary, the deletion process should be clear and straightforward
User Public Profile ("Vetrina")	Users should be able to create their public profiles starting from the information in their personal section, adding details about themselves and their creations.	Users should be able to view other sellers' public profiles, to gain an overview of an artist's work and background.	Users should be able to update their public profile based on their production or on what they want to show to the public.	Deletion does not apply directly on public profiles, however, users can decide to partially delete information they want to maintain private. Public profiles are

				automatically deleted with the deletion of the related personal account.
Handcrafted Creations	Users should be able to add listings for their handcrafted creations, providing details about their products.	Users should be able to view and search for these creations effectively.	Users should be able update details of their product listings from their personal section.	Users should be able to remove their listings when necessary.
Marketplace and External E-commerce Platforms	Users should be able to list their products on the platform and integrate their listings with external e-commerce platforms.	Buyers should be able to browse products on the platform and access external listings.	Sellers should be able to manage their product listings and updating information on external platforms.	Sellers should be able to remove listings from both the platform and external e-commerce sites.
Community	Users should be able to create communities on the platform. They should also be able to create posts on their own and other users' communities.	Users should be able to access and subscribe to other users' communities.	Users should be able to update information related to their communities, as well as shared posts. They should also be able to edit and update their own posts in other communities.	Users should be able to delete their own communities and posts published within them. Users should be able to delete their own posts in other communities.
Private Messages	Users should be able to write new messages to other sellers and answer to other users' requests.	Users should be able to view received and sent messages in the dedicated section within their personal profile.	Users should be able to manage and update their message section, even if they are not able to update messages directly.	Users should not be able to delete single messages, however they can choose to delete conversations or archive them.
Learning Resources	Users do not have the	Users should be able to view	Users are not able to update	Users should not be able to

	possibility of creating learning guides, which are provided by the platform administrators.	guides page, play videos and read guides text also with the aid of the custom visualization function.	guides contents, however they should be able to update the section containing their favorite guides.	delete guides from the platform, however they are free to delete guides from their favorites section.
Payment	Sellers and buyers have the possibility to add and save payment methods.	Users should be able to visualize their payment methods as well as their transactions in the dedicated section within their personal profile.	Users should be able to update their payment methods, in both cases of selling or buying a product.	Users should be able to remove their payment methods at any time.
Shipping and Logistics	Since shipping is managed by external platforms, depending on the case users are given the possibility to add a shipping method, always with the supervision of the Ruel platform.	Users are able to view details about shippings in the sections dedicated to each product.	Users can update their preferences related to shipping methods.	Users should be able to remove shipping methods, e.g., in case they select a new method.

# 4.3. INTERACTION DESIGN

Our interaction design approach for Ruel is based on a deep understanding of the unique characteristics of our target users, their age and their confidence in technology. To create a user-friendly and accessible platform, we incorporated several key design principles, based on general design guidelines for this specific audience, but also on the conclusions drawn from our previously explored user testing.

# **GRANULARITY AND STEP-BY-STEP GUIDANCE**

Recognising that our users may prefer a **step-by-step approach**, we have organized each key functionality into its own section, trying to avoid pages with too many and different operations. This granularity minimizes cognitive overload and allows users to focus on specific tasks without distraction. By navigating these different sections within the site hierarchy, we also implemented **breadcrumbs** throughout the platform to reduce confusion and give users a clear sense of their position.

Keeping in mind the potential unfamiliarity of new users, we also included a **wizard** to guide them through their first interactions with the site. This guided approach ensures that even the less tech-savvy can get up to speed quickly.

#### **SIMPLIFICATION**

For the same reasons, we decided to simplify the homepage with **direct** access to the selling process, eliminating the need for users to navigate through their personal sections and reach that option. This streamlines the experience, reduces mental overload and allows users to start selling - one of Ruel's main activities - with ease.

In addition, sections of the site, such as the marketplace, guides and communities, share a consistent structure and core features. This design choice promotes **familiarity** and allows users to move seamlessly between different parts of the platform.

#### **HELP**

Our user testing also showed that we needed to prioritize providing constant, visible and easily **accessible help options**. A 'Help Center' button is prominently placed in the bottom right-hand corner of every page to ensure users can get help quickly. This help center includes, besides other content, a personal support page that offers both an instant chat with our customer support team and direct phone numbers, giving users the option that best suits their needs. We chose these two solutions over a more common form to ensure immediate and effective support, while a form was implemented on the About

page to provide a place for users to leave insightful feedback and help us improve our platform.

### **CUSTOMIZATION**

We didn't want to overlook users' familiarity with **icons**, so we consistently pair them with **descriptive text** to enhance understanding. Where hover-over text on icons is necessary, it is implemented to provide clarity, particularly for features such as zooming in and out of text.

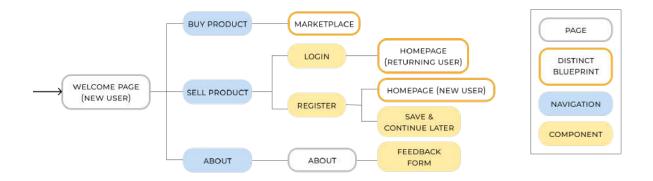
We also understand the importance of accommodating different visual preferences. Therefore, users have the flexibility to customize their settings as they please and change **text sizes** to suit their specific needs.

## 4.4. BLUEPRINTS

The blueprints included in this section provide an insight into the **structural framework** of Ruel's platform. As indicated in the legend, we use various elements to represent specific components: pages (representing single full-screen views), navigation elements (illustrating the connections between pages), and the core page components (depicting elements within a page, each with its distinct functionality). Finally, we indicated pages with dedicated extended blueprints with a different color.

## **BLUEPRINT 1: HOMEPAGE FOR LOGGED OUT NEW USERS**

Blueprint 1 outlines the homepage for logged out new users, serving as the **welcome page**. Here, they can choose to explore the marketplace or begin selling their products. Users are invited to either log in or register, with the option to save their progress for later. Additionally, a link to the "About" section is provided for users seeking more information about the website.



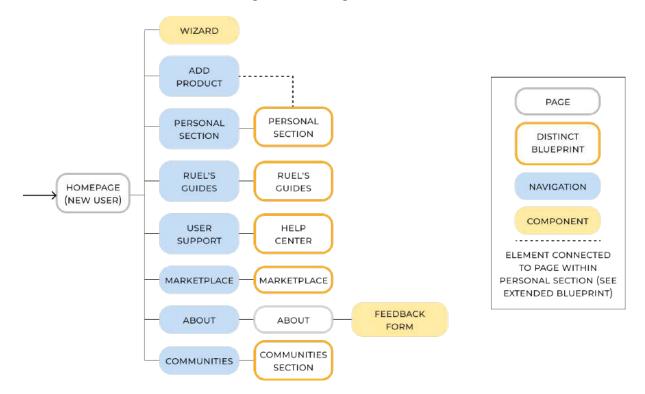
## **BLUEPRINT 2: HOMEPAGE FOR LOGGED-OUT RETURNING USERS**

In Blueprint 2, the homepage for **logged out returning users** presents one difference: users who began their registration process in a previous session can continue where they left off. This aims at minimizing potential overwhelm for users who prefer to complete their registration in stages.



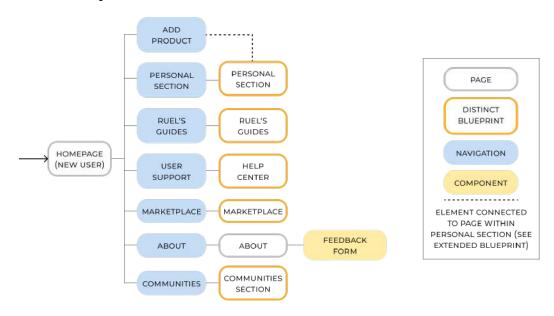
## **BLUEPRINT 3: HOMEPAGE FOR LOGGED IN NEW USERS**

The homepage for **first-time logged in users** serves as a gateway to all platform sections. It includes a wizard functionality to assist first-time users during navigation. Additionally, a shortcut to the "Add product" function aims at facilitating users' navigation.



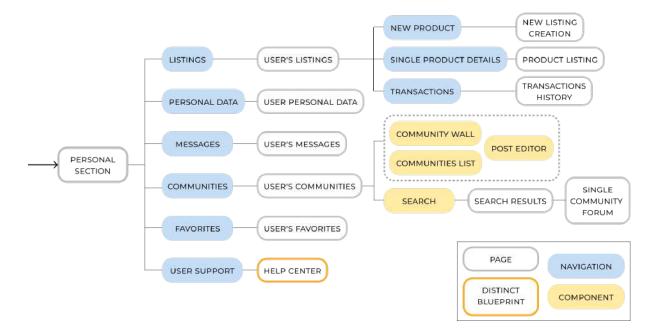
### **BLUEPRINT 4: HOMEPAGE FOR LOGGED IN RETURNING USERS**

The homepage for **logged in returning users** maintains the same structure as the previous version, with the exception of the wizard functionality.



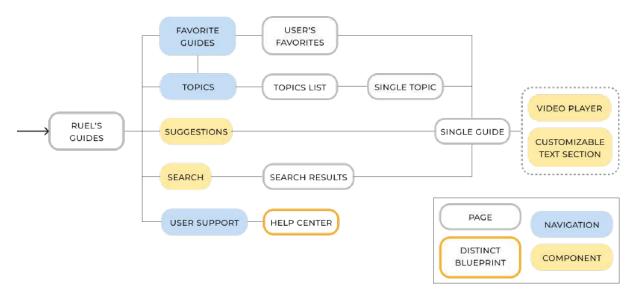
## **BLUEPRINT 5: PERSONAL SECTION**

Within their **Personal Section**, users have access to personal data associated with themselves and their products. The subsections of the personal profile are deliberately separated to allow users to focus on a **limited number of tasks** within each page, preventing information overload and crowded content. Notice that the Personal Section, as well as the other subsections depicted in the subsequent blueprints are consistently linked to the help center, **flexibility** to access assistance whenever needed.



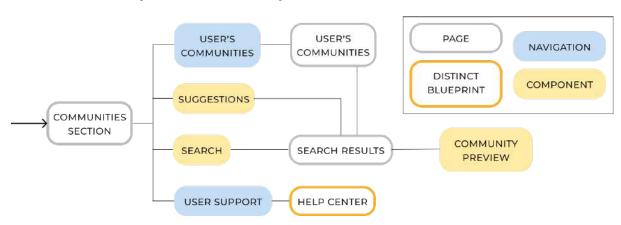
## **BLUEPRINT 6: RUEL'S GUIDES**

Ruel's **Guides Section** offers users insights and suggestions to improve their online selling activity. Within the guides main page users have different options to access relevant information: they can use the search functionality, select from suggested topics, or explore the complete topic list. These different methods ensure that users can easily reach guide pages to gain insights on the topics they wish to explore. From the guides section, users can also access their **favorite guides**.



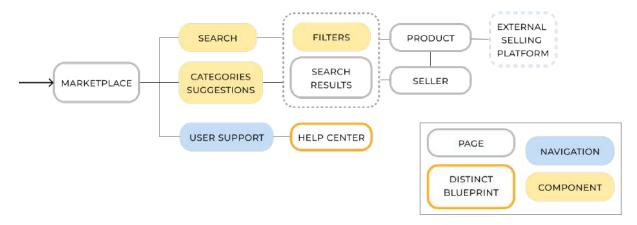
#### **BLUEPRINT 7: COMMUNITIES**

The **Communities Section** on the Ruel platform allows users to discover communities of members who share common interests. Users can search for keywords to find and join communities of their interest.



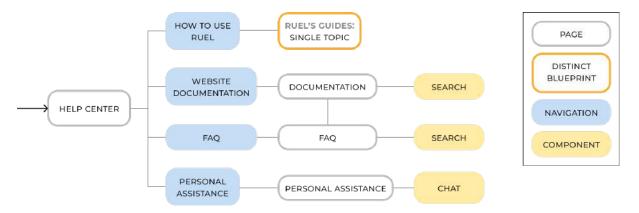
### **BLUEPRINT 8: MARKETPLACE**

On the homepage, users can navigate to Ruel's **Marketplace**, where they can browse products and sellers profiles, referred to as "Vetrine". Product listings are linked to external platforms, since purchases are not made directly on Ruel.



#### **BLUEPRINT 9: HELP CENTER**

Each page on the website offers direct access to the **Help Center**. Within this section, users have the option to explore the website guide or documentation, find answers to frequently asked questions, or request personalized assistance.



## 4.5. WIREFRAMES

In this section, we present **wireframes** of our platform, offering a glimpse into the visual representation of our design concepts. While wireframes typically serve as the skeletal framework providing a structural outline of the platform's layout and functionality, we've decided to incorporate sample content in select areas, allowing for a deeper understanding of our **design intent**. This plus the additional touch of **color** to distinguish key sections, were deliberate choices aimed at offering a preview of the visual experience we aim to create. Additionally, we have **consistently** incorporated specific components across the website: breadcrumbs to aid users in navigation, and the help

button for quick and convenient access to the customer support section.

These wireframes are valuable tools both for showcasing our vision to potential **project stakeholders** and examining and improving our designs after the subsequent user testing process (more on the next chapter).

## **LOGGED-OUT HOMEPAGE**

The welcoming mat of our platform, where users can gain insights into our **mission and goals**, and access the sign-in or log-in sections (the latter if they are logged out). While not all functionalities of our platform are present in this reduced version of the final navbar, it provides a preview of what users can expect. The registration process is intentionally kept **straightforward**, with the option to provide additional personal information during the setup of a personal shop as needed moving forward.









### **LOGGED-IN HOMEPAGE**

The logged-in version of the **Homepage** differs slightly from the wireframes presented earlier. Here, the primary objectives of the platform are consolidated to assist users in their initial interaction with the platform and to ensure **seamless navigation** to the main sections and activities. The complete final navbar is now accessible in this view. A **wizard** function is provided allowing new users to navigate the platform and explore its main functionalities.





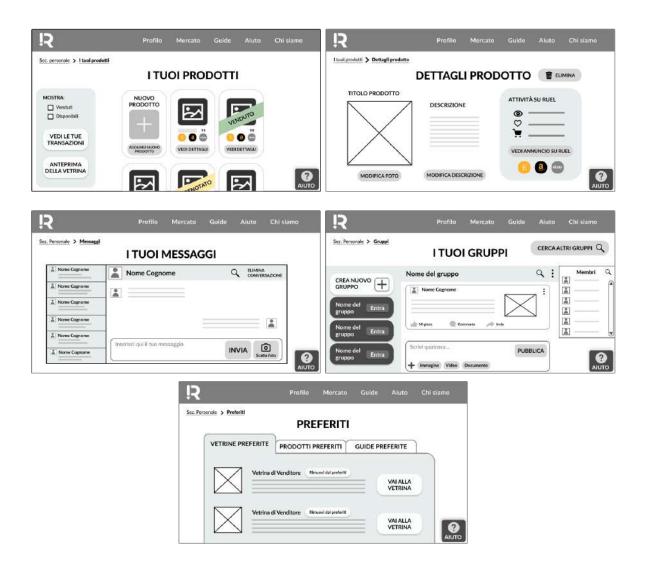


### **PERSONAL SECTION**

The **personal section** represents our gateway to personal data and product management. We've organized subsections with simplicity in mind, preventing information overload and ensuring smooth navigation. This section has a clear hierarchical structure: from the main page of the personal section, users can easily access various subsections to manage personal data or connect with other users. We have also implemented a **breadcrumb** component to help users navigate the system without any confusion about their current location at any time. We prioritized component consistency across different pages to improve users' learnability. **Text** plays a crucial role and is the preferred choice over icons, which are rarely used and always supplemented with text for clarity.







## **ADD NEW PRODUCT**

We have paid particular attention to the process of adding a new product to Ruel and external e-commerce platforms. User testing revealed that our target users are not accustomed to, nor comfortable with, long pages that require scrolling for data input. To address this, we have implemented a **step-by-step process**, which they navigate more quickly and confidently. Furthermore, we have incorporated links to dedicated guides at several steps, offering assistance to users looking to enhance their listings.







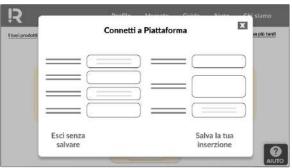














## **RUEL'S GUIDES**

Ruel's **guides section** plays a crucial role in the platform, providing users with suggestions and insights to enhance their listings and **overall online selling experience**. Users can easily access information through the search feature, or by browsing through suggested topics or the complete topic list. Similar to previous examples, this section maintains a clear and clean structure, reducing the visual complexity on each page. Guide articles feature a **video player**, for users who prefer tutorials in video format, and a **text section** with a zoom in and out functionality, for those who prefer reading.











### **COMMUNITIES**

On Ruel, users have the opportunity to explore **communities** for inspiration and connect with other sellers. These communities can be discovered through **keyword searches** or by exploring the suggested groups. Users can preview the group's content before deciding to join. Once joined, users' can access their groups from the personal section. The layout of the communities section mirrors the design of the guides section, ensuring a consistent and familiar experience and enhancing users' **learnability**.



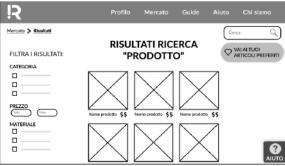




## **MARKETPLACE**

The Marketplace enables users to explore single products and seller profiles. Product listings are linked to the external platforms available, enhancing our users' shopping experience. Products can be either searched by entering keywords or browsing through categories, as illustrated in the example. Filtering options have been kept essential to avoid information overload.









### **HELP CENTER**

Users can access comprehensive support, documentation, and assistance whenever needed through the persistent "Aiuto" button or the "Aiuto" section in the navbar. We have included an additional help button on the bottom right of the page to ensure that the access to the help section remains highly visible, as elements in the navbar are sometimes overlooked. A question mark icon was included in this case, designed to attract users' attention and guide them to the available assistance.

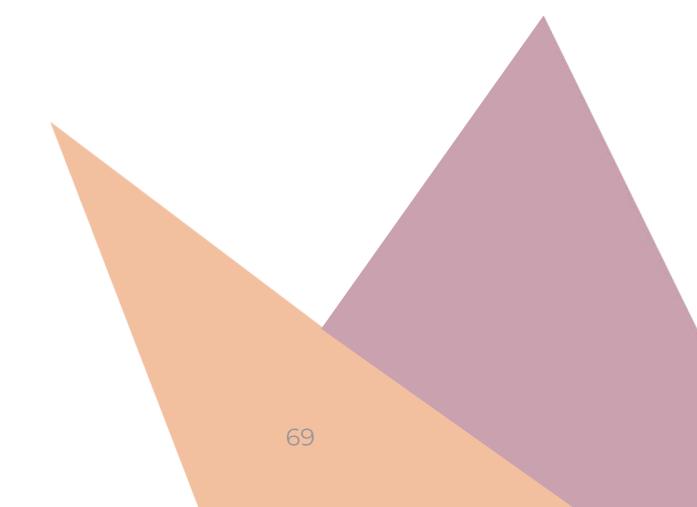




## **ABOUT SECTION**

The **About Section** offers users information about the Ruel's platform in a simple text format. Additionally, users have the possibility to provide feedback to contribute to the platform's ongoing improvement.





# 5. EVALUATION OF DESIGN

In this section, we present an **evaluation of our design proposal**, which consists of two main phases:

- 1. the **inspection**, a heuristic analysis of our design according to the already selected guidelines;
- 2. the **user testing**, where we obtain feedback and opinions from selected users.

# 5.1. INSPECTION

We have chosen to apply the same **evaluation guidelines** used to assess our reference existing systems, Sellbrite and Etsy, to conduct the comprehensive self-analysis of each component of our proposal. We will now delve into our **design main points' inspection** discussing themes like usability and navigation, content quality and credibility.

### **HOMEPAGE USABILITY**

The homepage of our platform offers a straightforward and **finite-scroll** design. It prominently features clear **call-to-action buttons** that guide users to key tasks: buying or selling, or accessing their personal section. These options, along with the other main sections, are also readily available in the top-fixed navbar for an **easy and persistent navigation**. Similarly, the Help Center is additionally conveniently accessible via a bottom-fixed button. Secondary actions and additional information, including details about Ruel's platform and team, are thoughtfully grouped in separated areas.

Titles and keywords on the homepage are concise, while longer descriptions use **familiar language** to encourage users on their navigation. In cases where a page presents substantial information, such as search results or documentation, users have the flexibility to sort, filter and limit the content. Prompts and messages throughout the site are kept **brief** and **unambiguous**, minimizing any potential for confusion and ensuring users can quickly grasp the information they need.

Images on the homepage serve strictly as **meaningful graphics**, often accompanied by brief descriptions to assist the specific needs of our target audience.

## TASK ORIENTATION AND NAVIGATION

Our approach to task orientation involved **minimizing** the use of excessive scripts, applets, media files, and graphical elements. We've done this while ensuring that essential explanations and graphical elements are provided where necessary, based on our research and user

testing results. Similarly, the number of screens required per task has been kept to a minimum as much as possible, with most pages designed for finite-scrolling.

Critical user paths, such as subscription, selling, or purchasing actions, are straightforward and **free from distractions**. We've incorporated **guided steps** to facilitate quick completion of common tasks, aligning with our goal of making the user experience as efficient as possible. For the same reason, **wizards** were also strategically included in our design. To enhance user convenience, we've implemented a feature that allows users to always resume their activities from where they left off, whether it's during processes, such as registration or the uploading of a new product.

Key topics, features, and functions that are frequently used or generally important are strategically positioned near the **center of the page**. We deliberately minimized additional actions in the margins to maintain a simple and distraction-free navigation experience. Our website is intentionally devoid of distracting or unnecessary features and **avoids imposing time limitations** on user interactions.

Overall, our navigation choices are logically ordered to align with **task-oriented workflows**. Our system adopts a broad and shallow structure, favoring many items on a menu over deep menu levels. In line with this approach, we have **avoided the use of drop-down** menus to enhance user clarity and ease of use.

#### TRUST AND CREDIBILITY

In line with the needs and preferences of our target users, establishing **trust and credibility** has been a primary focus of our design efforts. To address this goal, we've dedicated significant attention to refining our Help Center and Community sections. The latter especially was carefully crafted to not only support users in creating and managing products but also to facilitate **mutual assistance** within our user community. Our vision contemplates users helping one another, fostering a strong sense of support and collaboration.

Additionally, the FAQ and online help within our Help Center offer **step-by-step instructions**, ensuring users can easily accomplish critical tasks with clear and concise guidance. We've ensured that users can access the assistance they need in the right format and at the right time, providing a seamless support experience.

Furthermore, as an organization, we are committed to promoting authenticity and reliability. To reinforce this commitment, we offer **real-person assistance** and support, adding an extra layer of trust and assurance for our users. Moreover, we provide valuable feedback to users

when it's most needed, such as progress indicators during the checkout process, ensuring a smooth and transparent user experience.

## 5.2. USER TESTING

#### **5.2.1. TESTING PROTOCOL**

We performed an additional round of **user testing** to evaluate the usability of the Ruel platform. Similar to the previous testing process, we employed **discount usability testing** and the **thinking aloud methodology**. A prototype of the website, based on the wireframes, was created to enable users to interact with the platform in a realistic setting. This round of testing included the same three participants as the previous testing:

- Interviewee C 73-year-old female participant, a retired high school teacher who does not enjoy nor particularly trust online shopping and mainly uses Amazon for her purchases. She is unfamiliar with online selling and has never used the Etsy and Sellbrite platforms. In her free time, she enjoys painting.
- Interviewee E 70-year-old female participant, a retired high school teacher who is familiar with online shopping across various platforms. She enjoys sewing and fabric-related activities, often drawing inspiration from Pinterest and occasionally from Etsy. However, she does not have any experience in online selling and is entirely unfamiliar with the Sellbrite platform.
- Interviewee G 66-year-old male participant, a retired engineer with experience in online shopping but not familiar with online selling. His hobby is woodworking. He is entirely unfamiliar with both the Etsy and Sellbrite platforms.

Users where asked to share their screen and perform the following six tasks:

- 1. Registration: You are on the Ruel homepage and want to sell a product.
  - a. Register on Ruel by following the provided steps.
  - b. Access your personal section.
- 2. Edit Product Details: You are a seller and want to view all your products for sale, specifically to edit a product description.
  - a. Find the page with your products.
  - b. Select a product to view its details.
  - c. Then, edit the description and save.
- 3. Add New Product: Now, you want to add a new product:
  - a. Return to the homepage and click 'Add New Product.'
  - b. Complete the process until the listing is complete.

- **4. Seek Assistance**: If you're having difficulty, how would you request assistance?
- 5. Contact Seller: You've decided to purchase a product you added to your favorites and really like. However, you want to contact the seller for some information first. So:
  - a. Access your personal section to see your favorites, then go to your favorite products.
  - b. Go to the product listing.
  - c. Contact the seller by sending a message.
- **6.** Remove Item From Favorites: The information the seller provided didn't convince you, so you decide to remove it from your favorites.
  - a. Return to your favorites.
  - b. Remove an item from your favorites.

# **5.2.2. TESTING PROCESS**

The tests were conducted **remotely**; participants were asked the permission to record their screen. Before starting the test, users were provided with a short presentation of the website.

# **TEST RESULTS: INTERVIEWEE C**

Task	Task success	Time on task	Number of errors	Satisfaction
1	Success	2:15 min	None The user initially considered the first option "Add Product" on the left but quickly corrected themselves and chose the correct option, "Personal Section".	High satisfaction due to clarity and linearity of the process.
2	Success	0:50 min	None	High satisfaction
3	Success	0:55 min	None  The user initially hesitated because it was not clear how to return to the initial page. They solved the issue by using the breadcrumb navigation.	High satisfaction, the user found the process very clear and simple.
4	Success	0:16 min	None The user selected the help button on the bottom right section of	High satisfaction, the help button was highly visible and helpful.

			the page	
5	Success	1:44 min	■ User selected "My Products" instead of "Favorites" but quickly returned to the previous page and selected the correct option	Normal satisfaction
6	Success	0:33 min	None	High satisfaction

**Notes:** The user expressed a high level of satisfaction with the navigation experience on Ruel. She executed the tasks quickly and with minimal hesitation, appreciating the simplicity of the page layout and design, which allowed her to perform the tasks with confidence. While there were initial moments of confusion with certain tasks, the user demonstrated the capability to self-correct and proceed autonomously.

Improvements: The user showed noticeably more satisfaction with the navigation experience on Ruel, in strong contrast to the previous testing experience with the selected reference websites, which left her with a negative impression. Significant improvements were observed in her ability to orient herself within the website location and navigate both forward and backward through its hierarchical structure. She appreciated the clear path leading to the registration process, which caused her confusion and frustration during the previous test session. Unlike the previous user test where the user tended to overlook important text and links, the inclusion of large and well-labeled buttons allowed her to perform the required tasks without uncertainty. Additionally, the decision to use text instead of icons was a favorable choice that effectively guided the user toward task completion.

# **TEST RESULTS: INTERVIEWEE E**

Task	Task success	Time on task	Number of errors	Satisfaction
1	Success	1:43 min	None	High satisfaction
2	Success	2:45 min	None	High satisfaction
3	Success	4:30 min	The user did not use the links provided on the screen to return to the initial page but rather relied on the browser's backward arrow. This approach	Normal satisfaction

			was not ideal, as it required her to retrace the steps through the listing creation process to return to the homepage.	
4	Success	0:05 min	None	High satisfaction
5	Success	2:10 min	<ul> <li>User accessed her listings instead of her favorite products.</li> <li>Within the favorites section, the user selected her favorite sellers instead of her favorite products. This led her directly to the seller page instead of the product page.</li> </ul>	High satisfaction
6	Partial success	0:09 sec	* Within the favorites section, the user removed one of her favorite sellers instead of one of the products.	High satisfaction

**Notes:** The user appreciated the website's clean layout and absence of distracting elements. She finds Ruel more intuitive than the reference platform evaluated in the previous testing round. The overall navigation experience was smooth, but the user encountered some complexity when attempting to return to the homepage due to a lack of awareness that the website logo serves as a clickable link.

**Improvements:** The user completed the registration process without any error nor hesitation. Furthermore, the decision to implement a step-by-step procedure for adding a new product was well-received and less frustrating compared to the long listing creation page on Etsy.

# **TEST RESULTS: INTERVIEWEE G**

-	Task	Task success	Time on task	Number of errors	Satisfaction
	1	Success	3:31 min	None	Normal satisfaction; the task was completed quickly but the users expressed doubts

				about some components featured in the registration process.
2	Success	0:50 min	None	High satisfaction, task performed quickly and without errors.
3	Success with assistance	9:30 min	t could not go back smoothly from guides article to listing (also due to prototype limitations)	Normal satisfaction due to confusion with guide pages and some lack of consistency that worsened the navigation experience.
4	Success	0:10 min	None	High satisfaction, checked the presence of the help button in other screen views and was satisfied with the consistency.
5	Success	0:53 min	None	High satisfaction, the more complex task performed quickly.
6	Success	0:21 min	None	High satisfaction

**Notes:** The user expressed overall satisfaction with the experience on Ruel, describing the website as intuitive and well-structured. Although all tasks were completed successfully, the user had doubts and provided negative feedback regarding certain elements' ambiguity and the lack of clarity regarding inputting personal information.

**Improvements:** The user encountered no difficulties during the registration process, an improvement from the previous test session. The decision to use large and concise text elements instead of icons allowed him to perform tasks quickly. Despite the user's tendency to follow alternative paths compared to other users to access subsections of the website, the platform's structure facilitated quick access to the desired information.

# **SUS RESULTS**

Questions	Interviewe e C	Interviewe e E	Interviewe e G
I think that I would like to use this system frequently.	5	5	4
I found the system unnecessarily complex.	1	1	1
I thought the system was easy to use.	5	5	4
I think that I would need the support of a technical person to be able to use this system.	4	1	1
I found the various functions in this system were well integrated.	5	5	4
I thought there was too much inconsistency in this system.	1	1	1
I would imagine that most people would learn to use this system very quickly.	5	4	5
I found the system very cumbersome to use.	1	1	1
I felt very confident using the system.	5	5	4
I needed to learn a lot of things before I could get going with this system.	1	1	1
SUS Total	92.5	97.5	90
Average	93.33		

## 5.2.3. ANALYSIS OF RESULTS

The outcomes of this round of user testing have revealed a **positive user perception** of the overall user experience on Ruel's platform. In contrast to the previous testing phase, users demonstrated a significant **improvement** in task completion, experiencing a smoother process and a lower level of frustration. The issues identified during the previous testing session were effectively addressed during the development of the platform's prototype, allowing users to successfully perform similar tasks as the prior session.

However, some **minor errors** were observed during the testing, although users were able to recover and complete their tasks in all cases.

One notable error involved users confusing their own products with their favorite products. In two instances, users accessed the "My Products" section instead of their "Favorites", but quickly returned to the previous page and selected the correct option (E1).

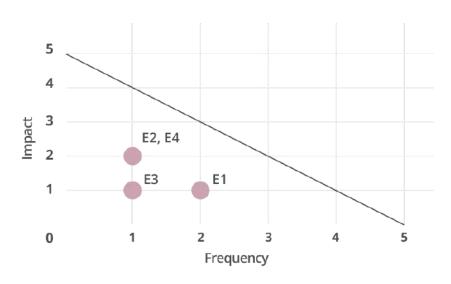
Another challenge was observed in users' attempts to **return to the homepage**. Users did not recognize the platform logo as a link to the initial page. While one user correctly used the **breadcrumb** trail to navigate back to the homepage, another user relied on the browser's backward arrow, which was not an ideal approach, as it required retracing the steps through the listing creation process to return to the homepage (**E2**).

A further observed error consisted of **confusing favorite sellers** with favorite products, leading the user directly to the seller page instead of the requested product page. Consequently, within the favorites section, the user removed one of her favorite sellers instead of one of the products. **(E3)**.

Finally, there was confusion observed in one user when navigating from the guides back to the listing creation. This user did not initially consider using the backward arrow to resume the listing creation (E4). It's worth noting that this error was partly due to limitations in the prototype navigation system.

# **URGENCY CURVE**

As for the previous user testing round, we used the observed errors to construct a **frequency-impact urgency curve**. As depicted in the graph, the errors of this testing session did not exceed the urgency threshold.



**Ruel: Urgency Curve** 

# 5.2.4. CONCLUSION

The latest round of user testing for the Ruel platform has produced **positive results**, showing great improvements compared to the tests on the reference platforms of the previous testing phase. Users managed to complete tasks successfully and experienced smoother processes and **reduced frustration**, which was one of our main goals during the development of the Ruel's prototype. Users were able to recover quickly from errors, which mainly consisted of confusion during the navigation across main sections and subsections.

Satisfaction ratings, as measured by the System Usability Scale, show a generally **positive experience** of the interviewed users, who felt **confident** during navigation and found the system easy to use.

Overall, this user testing session reveals that the **solutions** adopted to enhance the navigation experience of our target users were in general **effective**. Further enhancement and improvements addressing the identified minor errors could contribute to an even more user-friendly experience.

# 6. BEFORE AND AFTER

To complete our project proposal, we implemented some of the **improvements** derived from the suggestions that emerged during the last round of user testing, even if none of these.

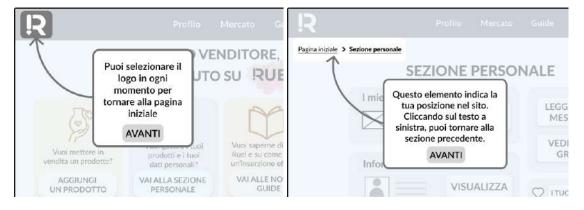
For the sake of clarity, we highlighted **mandatory fields** in the registration and listing creation processes, as the test revealed that the lack of such indications could lead to some confusion.

# REGISTRATI

Clicca sui riquadri bianchi per inserire le informazioni richieste. Puoi interrompere la registrazione in qualsiasi momento e tornare più tardi.

Campo obbligatorio	
NOME*	EMAIL*
COGNOME*	PASSWORD*
SALVA E TORNA PIÙ TARDI	CONTINUA 🖶

A further issue to address was the lack of clarity on how to return to the **homepage**. Using the **breadcrumb** or selecting the platform's **logo** are both viable options to reach the homepage, which however are often overlooked or not known to users. To solve this issue, we decided to include related instructions in the **wizard** component to help users familiarize with this functionality.

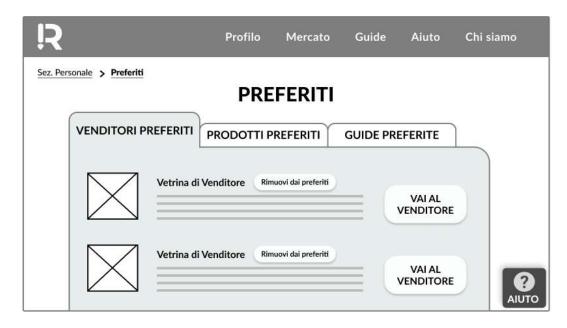


A user also raised a question related to the **breadcrumb**, noting that it typically displays the full path to the user's location on the website. Nevertheless, we decided to **maintain** the breadcrumb in its current form. Our decision was based on our priority for legible text with a larger font size, which improves **readability**, and the intention to maintain a clean page layout.

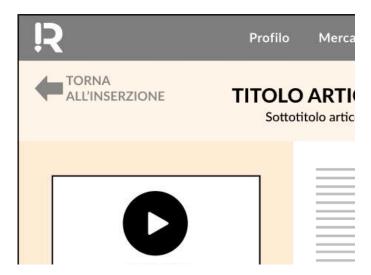
During the testing, we observed that when users were asked to access the "Favorite Products" session, they often ended up opening their product listings page instead. Both sections are accessible from the Personal Section, but the link to the product listings page is positioned in a way that naturally attracts users who read from left to right. To reduce the likelihood of this potential error, we adjusted the page layout. Now, the links to users' listings and favorite products are placed at the same horizontal level on the page and we slightly increased the font size of the favorites page link.



A further **minor adjustment** within the favorites section could be considered to avoid potential confusion. During testing, one user was asked to remove a product from her favorites, but **accidentally selected** and removed one of her favorites shops ("Vetrina") instead. While this error could partly be attributed to the prototype's lack of detailed information, changing the text from "Vetrine Preferite" ("Favorite showcases") to "Venditori Preferiti" ("Favorite Sellers") might help prevent such confusion in the future, as the concept of "Showcase" could be **less intuitive** for some users.



An issue related to navigation during the creation of a listing emerged during the testing phase. Users were confused when trying to **return to the listing creation** process after accessing suggested guide articles. In our prototype, the breadcrumb on the guide article provided a link to the related guides **topics page**, which led to uncertainty for users willing to go back to the listing creation. To address this, we have chosen to replace the breadcrumb with a larger link that allows users to easily return to the listing process. We opted **against** using an **overlay** window for displaying guide content because the chosen solution offers a **larger viewing area**.



Additionally, we want to highlight one potential adjustment based on a **user's reaction** when selecting the "Contact Seller" button. Due to the used icon, he believed that the contact would occur via email, rather than through the chat. In a future development phase of the platform, further testings could reveal if a **different icon**, such as one of the options below, might prevent such confusion, although it was not a

priority concern as it did not cause any error. Generally, conducting tests to evaluate the **perception of icons by our target audience** could offer helpful insights on how to effectively use these elements on the platform.



Finally, this phase of user testing has resolved the doubts regarding the **help button** provided on the bottom right of the page. Despite concerns about potential redundancy and a less clean page layout, **all users** consistently chose this button to access the help section. As a result, we have decided to maintain it.

During testing, some users provided suggestions or raised questions that fall **outside the scope** of this phase of development. They are related to matters such as the website's payment system or specific content details, and they will not be addressed in the current work, as they are **not directly related to usability** concerns.

The mentioned adjustments were implemented in the final version of our Figma prototype, accessible through this <u>Link</u>.

# 7. CONCLUSION

This UUX project requirements challenged us students to step into the shoes of a target users segment diametrically opposed to us and understand their needs deeply. This has been undeniably demanding at different levels, and for this very reason we relied greatly on **interviews** and **user testing** to guide us in our decision process, gaining valuable insights and shifting our focus to prioritize user-centric design. And, indeed, our latest round of user testing for the Ruel platform proved to us that we worked in the right direction, yielding positive outcomes. Compared to previous tests on reference platforms, in fact, users experienced **smoother processes**, reduced frustration, and improved task completion rates.

Moreover, it's important to acknowledge in these conclusions that our work operates within the constraints of a university project context, with limited resources and expertise. While we've made significant progress, real-world implementation may require **additional resources** and specialized knowledge that we lack, like technologic and economic ones, just to mention the most obvious.

Looking ahead, we acknowledge that there is still room for further improvement. Specifically, we would note considering addressing the use of **dialects** which is prevalent and diffused among our target users in Italy and that should be better explored in the future. Additionally, exploring **strategic partnerships** with other companies and stakeholders could also enhance the platform's offerings and user experience, as mentioned in our previous business notes.

# CREDITS AND ACKNOWLEDGEMENTS

All sources and documentation used in this project are acknowledged and attributed as required by their respective terms and conditions. Any resources, including icons, wireframes, or plugins, that have been used are done so in compliance with their accessibility and reuse permissions.

Icons used in our project were sourced from <u>Noun Project</u> (https://thenounproject.com/), and we sincerely acknowledge and attribute the creators for their valuable contributions: Doodle Icons, fihdxicon, Robert Won, DOICON, Enjang Solehudin, Laymik, iconesia, Evgenii Gnezdilov, Phạm Thanh Lộc, Kyle Dodson, Creative Stall, Smashicons, Llisole, Adrien Coquet, YANDI RS, Deemak Daksina, TMD, Febrian Hidayat, TMD, shashank singh, Al Fitra Netera Anfal, IYIKON, Andrejs Kirma.

We also made use of Figma plugins for useful icons and wireframes that aided in our design process.

We would like to thank all the participants who generously shared their time, insights, and feedback during our interviews and user testing sessions. Their input played a crucial role in shaping our project.

# **APPENDIX**

# **FULL INTERVIEWS**

INTERVIEWEE A	INTERVIEWEE B	INTERVIEWEE C				
Female 70 High School Diploma Retired Public Office Employee	Female 69 High School Diploma Former Factory Worker	Female 73 University Degree Retired High School Teacher				
ELECTRONIC DEVICE AND INTERNET USE: What electronic devices do you own? Which	ch one do you use the most?					
She primarily uses her <b>computer</b> , <b>phone</b> , <b>and e-book reader</b> , with her phone being the device she uses most frequently.  Occasionally, she also uses her phone for reading e-books.	She owns a <b>smartphone</b> and a <b>very basic laptop</b> . She's more comfortable using her phone.	She owns <b>a PC, a</b> <i>tablet</i> , and a <b>smartphone</b> , but uses her tablet more frequently than the other devices.				
Are you familiar with online shopping? Car	n you name some e-commerce websites?					
Yes, she is familiar with some e-commerce platforms such as Amazon (although she does not have a Prime account) and websites selling pharmaceutical products.	Yes, she often buys clothes online when there are special discounts like at <b>Zalando, Zara</b> or <b>H&amp;M</b> .	She does <b>not particularly</b> enjoy online shopping and prefers to use it mainly to purchase tickets or services online rather than physical products. She typically relies on platforms like <b>Amazon</b> or <b>specific company websites</b> for her online purchases.				
Are you familiar with selling products onlin	e? Do you know some websites for selling o	online?				
The only experience she had with selling online was on <b>Subito.it</b> , where she used it to sell a car.	She hasn't sold <b>anything</b> online, but knows about Facebook Market, Depop and Vinted.	She has <b>never</b> sold anything online.				
What difficulties do you face when using o	nline platforms for buying and selling?					
Generally, she faces difficulties during the payment process, so she prefers websites that can save her credit card information. Additionally, she dislikes spending too much time searching for a product and feels insecure since she cannot physically see the product before purchasing it.	If the website doesn't send her <b>regular updates about the shipping</b> she can get anxious. Same goes for <b>personal and credit card information.</b>	She has difficulties with time-limited purchases, such as buying tickets, as she often lacks sufficient time to complete the task and ends up having to repeat the process multiple times. Additionally, she has a preference for websites not storing her credit card information, which is why she doesn't like purchasing on Amazon. She finds the process of removing a card from Amazon's system to be complex and inconvenient.				
What positive aspects do you find in using	online platforms for buying and selling?					
The main advantages, according to her, consist of the <b>time efficiency</b> of online shopping, the <b>wide variety of choices</b> , and generally <b>more convenient prices</b> .	When she buys during <b>sales</b> , online shopping can turn out to be extremely convenient. As for selling, she has no experience around it but believes it could be a great way to make some <b>extra income</b> from things she no longer needs.	Positive aspects of online purchasing include the <b>speed and convenience of the process</b> , as well as the convenience of having the items delivered directly to her home. In general, she appreciates websites with a clear structure.				
Can you provide examples of websites you	Can you provide examples of websites you like and frequently use? What do you like about them?					
She appreciates <b>Youtube</b> for its wide range of content and the helpful suggestions it offers. Additionally, she frequently uses Amazon for online shopping.	She likes using <b>Facebook</b> and <b>Instagram</b> to share pictures and keep herself updated with her friends and relatives.	She frequently uses the <b>Uffizi Galleries</b> website, and appreciates its richness and clear structure. This allows her to easily find specific information, thanks to the well-organized presentation. Additionally, she effectively uses the site's search bar.				
LEISURE TIME ACTIVITIES: Would you describe yourself as an introvert or an extrovert?						
She would describe herself as an <b>introvert</b> . While she enjoys attending events and expositions, she prefers to paint	She considers herself something in between, probably leaning more on the	She identifies as an <b>introvert</b> , even if at times she enjoys socializing with friends at				

	<b>extrovert</b> side. With time, she started to enjoy more alone time spent watching movies, and doing simple crafts.	cultural events.				
Do you engage in creative and artistic activities in your spare time?						
Her main hobby is <b>creating paintings</b> .	Yes, she likes doing simple <b>crafts</b> like making handmade greeting cards or decoupage. It helps her relax and feel productive.	She enjoys <b>creating abstract paintings</b> in her spare time.				
Do you take classes or attend events/exhibitions/presentations related to your interests in your spare time?						
where she can interact with other individuals with the same interest. Additionally, she is actively involved in an association that organizes collective exhibitions, which serves as a motivation for	She hasn't taken any classes, but occasionally visits a <b>nearby shop</b> dedicated to <b>painting and decoupage</b> to keep herself updated. She believes that this is mainly due to the fact that in the small town where she lives there are not many activities of these kinds.	She actively participates as a visitor in various exhibitions and attends numerous online lectures. Although she has never exhibited her own paintings, she has been involved in organizing exhibitions for other artists.				
Do you spend time with people who share t	the same activities as you? How important	is the social aspect to you?				
other artists to gain confidence in her	The social aspect is really important to her, as it suggests a sense of <b>community</b> and <b>friendship</b> , but unfortunately she doesn't have friends with the same passion.	She believes that her main reason for attending events such as exhibition openings or book presentations is to connect with like-minded individuals who share similar interests.				
SELLING YOUR OWN PRODUCTS: Would you consider selling your products o	SELLING YOUR OWN PRODUCTS: Would you consider selling your products online? Would you be willing to pay for a service that allows you to sell your product?					
promotion; these activities seem challenging and time consuming. Another concern she has relates to <b>trust</b> in the website. She emphasizes the importance of	She would consider <b>selling</b> her handmade crafts online to start <b>saving some money</b> . And if there's a service that helps her with the process, making it easier to set up and manage, she might be willing to pay for it, depending on the price.	She has <b>never</b> sold her own paintings, but she has considered the idea and believes that the Internet can be a valid platform for selling her artwork.				
Do you imagine using this platform more or	n your smartphone or computer?					
She would use her <b>PC</b> for more complex tasks, while she would use her <b>smartphone</b> for quick information checks.	On her <b>smartphone</b> for sure.	She would use both her <b>PC</b> and <b>smartphone</b> for different types of tasks.				
What measures should a website take to ga	ain your trust in using it to sell your produc	ts?				
pay for the service is seen as an indicator of trustworthiness to her. She also values the availability of a <b>client support service with</b>	To gain her trust, a website should have clear <b>instructions</b> and <b>support</b> for setting up an online store. She would also prefer a live and immediate way to get customer support.	She values paying for services as it can often indicate a higher level of quality. She also prefers to avoid websites that rely on advertisements, as they tend to distract her while browsing. Therefore, she would be open to paying for a service and she would prefer a subscription model, either				

on a monthly or yearly basis.

assistance.

INTERVIEWEE D	INTERVIEWEE E	INTERVIEWEE F			
Male	Female	Female			
70 University Degree Retired Architect	70 University Degree Retired High School Teacher	65 High School Diploma Retired Teacher			
ELECTRONIC DEVICE AND INTERNET USE: What electronic devices do you own? Which one do you use the most?					
He owns a <b>desktop computer</b> and a <b>smartphone</b> , but he primarily uses his computer for tasks like browsing and managing emails.	She owns a <i>tablet</i> and a smartphone but mainly uses her tablet for her day-to-day activities. She does not own a computer.	She owns a <i>computer</i> and a <i>smartphone</i> , but uses her computer the most for browsing and other online activities like chatting with her friends and relatives.			
Are you familiar with online shopping? Car	n you name some e-commerce websites?				
Yes, he's familiar with online shopping. He shops for magazines, books and home appliances on <b>Einaudi, Amazon, eBay,</b> and <b>furniture-specialized online stores</b> occasionally.	She <b>frequently</b> makes online purchases, primarily for products such as textiles, sewing accessories, and jewelry making accessories. She tends to use <b>specific websites</b> for these purchases. Overall, she feels very comfortable using <b>Amazon</b> due to its reliable and punctual delivery, as well as the wide variety of products available on the platform.	Yes, she's familiar with online shopping. She often buys discounted books and art supplies from <b>Amazon</b> and <b>Etsy</b> .			
Are you familiar with selling products onling	ne? Do you know some websites for selling o	online?			
He has never sold <b>anything</b> , but because he has often used eBay he knows that it is used for this purpose.	She has <b>never</b> sold anything online.	She hasn't sold <b>anything</b> online herself, but she knows Etsy is a popular platform for selling handmade products.			
What difficulties do you face when using o	online platforms for buying and selling?				
He's usually cautious about <b>sharing personal information</b> online and worries about online <b>security</b> . He doesn't have social media, and he's not really fond of WhatsApp either.	She has never encountered any major issues with her online purchases. The only <b>negative experience</b> she had was when an item was not delivered, but the situation was promptly resolved by the customer service team.	Sometimes, she finds it a bit <b>overwhelming</b> to navigate through different websites and worries about online security when providing personal information. She never saves her <b>passwords</b> or <b>credit card info</b> while making these transactions.			
What positive aspects do you find in using	online platforms for buying and selling?				
Online shopping provides a wide range of products, especially today, and he can easily access information about materials and colors, compare prices and read customer reviews.	She appreciates the wide range of products available online, the speedy shipping services, and the responsive customer service in case she has any inquiries or requests.	She appreciates the <b>convenience</b> of shopping online, especially for finding unique art supplies and special discounts. As for selling, it sounds like a great way to reach a <b>broader audience</b> and share her artwork.			
Can you provide examples of websites you	like and frequently use? What do you like a	about them?			
His nephew introduced him to Pinterest, which he usually uses for inspirations, and he often visits websites like Einaudi or Feltrinelli to buy books. He thinks they have a very clear and well-organized page.	She enjoys using <b>Pinterest</b> , as this website frequently provides inspiration for her creative work.	Whatsapp is an application that she uses daily and never finds difficult to interact with. And even though she does spend some of her time on Etsy, she finds it pretty confusing and prefers clearer websites like Amazon.			
LEISURE TIME ACTIVITIES: Would you describe yourself as an introvert or an extrovert?					
He's not sure about it, but someone else would definitely describe him as an introvert, since he spends most of his time alone at home, reading, and working in his lab.	She would describe herself as an extrovert.	She considers herself more of an <b>introvert</b> , given that she enjoys spending time alone with her artwork and getting lost in her creative process. Social activities are only related to art.			
Do you engage in creative and artistic acti	vities in your spare time?				
Yes, even after retirement, he still enjoys designing and sometimes also building little furniture in his spare time. It allows	She mainly engages in <b>sewing and fabric-related activities,</b> creating items such as pillows, tablecloths, and other fabric	Yes, she loves <b>painting</b> and creating various art pieces mixing different media. It brings her joy and helps her stay mentally active.			

him to express his creativity, plus the doctor	items.	
says it helps with keeping his mind sharp.		

#### Do you take classes or attend events/exhibitions/presentations related to your interests in your spare time?

He used to attend architectural lectures when he was actively practicing as an architect. Now, he prefers to work on his projects independently at home and keeps himself updated through books, journals, or magazines.

She took part in classes to enhance her sewing and patchworking skills. Additionally, she has participated as a visitor in fairs and events to gather inspiration from others in the field.

Occasionally, she attends local art exhibitions and workshops to learn new techniques and connect with other artists. She says this is the main reason why she's still living in a big city instead of retiring somewhere quieter.

## Do you spend time with people who share the same activities as you? How important is the social aspect to you?

Not much, plus he cherishes his solitude during his creative process.

She believes that the social aspect and the ability to compare her work with others are enjoyable elements of her activity.

She has joined a **local art club** where she gets to spend time with other artists. The social aspect is essential to her, as it helps her feel inspired and motivated and more connected to her true persona.

#### **SELLING YOUR OWN PRODUCTS:**

#### Would you consider selling your products online? Would you be willing to pay for a service that allows you to sell your product?

He's never thought about it, but he would consider selling some of his pieces at least to make space at home. His wife would be on cloud nine. And if a service makes it. convenient and user-friendly, he'd be willing to pay for it. He's not really stressed about the money.

She doesn't feel particularly drawn to selling products if it requires a constant commitment. However, she would be more interested if she could maintain a sense of flexibility and autonomy in the process.

She would definitely consider selling her artwork online to reach a broader audience. She would be open to paying for a service that simplifies the selling process and provides marketing support.

#### Do you imagine using this platform more on your smartphone or computer?

He's comfortable using his computer. His phone's small screen at times makes it challenging to complete certain tasks.

She would use the platform on her tablet.

She prefers using her **computer** for tasks like this as she finds it more comfortable to work with a larger screen and keyboard.

#### What measures should a website take to gain your trust in using it to sell your products?

A website should have a secure and straightforward payment system, as well as clear policies on customer support and returns. Additionally, providing a professional and visually appealing storefront would enhance his trust and pleasure to use the platform and showcase his works.

She generally does not have trust issues when it comes to internet sites and people she has communicated with online for purchasing products. She is inclined to trust their credibility and reliability and she also places trust in the recommendations of acquaintances.

A website should have clear and transparent policies regarding fees, shipping, and customer support. Her son taught her to look up for them as soon as possible. She would also appreciate user reviews and ratings to build trust in the platform and potential customers.

INTERVIEWEE G	INTERVIEWEE H
Male	Female
66	68
Some College Education	High School Diploma
Occupation: Retired Engineer	Retired Nurse

#### **ELECTRONIC DEVICE AND INTERNET USE:**

## What electronic devices do you own? Which one do you use the most?

He owns a *smartphone* and a **laptop**. He uses his smartphone the She owns and daily uses her *smartphone*, and recently she most because it's more convenient for quick tasks.

received a tablet as a gift.

# Are you familiar with online shopping? Can you name some e-commerce websites?

Yes, I'm familiar with online shopping. I frequently shop for tools and gadgets on Amazon, and rarely eBay.

Yes, she's familiar with online shopping. She frequently shops for clothes and home goods on Amazon, IKEA and Zara.

# Are you familiar with selling products online? Do you know some websites for selling online?

He hasn't sold anything online, but he's heard of eBay as a platform for selling used items. He used it just a couple of times for buying but one of his ex colleagues frequently mentions it.

She hasn't sold anything online, but her daughter mentioned Etsy as a popular platform for selling handmade items, and Vinted.

# What difficulties do you face when using online platforms for buying and selling?

Sometimes, he finds it **challenging** to search for specific products, and he worries about scams or fraud when dealing with unknown sellers.

Sometimes, she struggles with **finding the right size or color for products** she wants to buy. Descriptions and photos may not be complete or satisfying. As for selling, she worries about **managing an online store**, which sounds **challenging**.

#### What positive aspects do you find in using online platforms for buying and selling?

Online shopping is convenient, and he can find a **wide range of products**. As for selling, it seems like a good way to declutter and make some extra money.

Online shopping is **convenient**, especially for finding unique items. As for selling, it seems like a great way to make some extra income.

#### Can you provide examples of websites you like and frequently use? What do you like about them?

He frequently uses **Amazon's** website and finds it pretty straightforward, well-organized and easy to navigate. He confessed he browses it at least once a day

She finds herself browsing **IKEA's** website even when she's not actively looking for a new piece, and just because she enjoys it.

#### **LEISURE TIME ACTIVITIES:**

#### Would you describe yourself as an introvert or an extrovert?

He's definitely more of an **introvert**. He enjoys spending time at home, tinkering with DIY projects and reading.

She's more of an **introvert**. She enjoys spending time at home, knitting and gardening.

#### Do you engage in creative and artistic activities in your spare time?

Yes, he enjoys **woodworking** and building **small projects**. It's part of his routine and keeps him busy. It also reminds him of his previous job.

Yes, she loves **knitting and crocheting**. She discovered this passion during her first pregnancy and never stopped since then, now It's still a relaxing and creative hobby for her.

#### Do you take classes or attend events/exhibitions/presentations related to your interests in your spare time?

Not so much now, but he used to attend woodworking **workshops** when he was more actively involved in his career.

She used to attend **knitting workshops** when there were these opportunities at a nearby center, but now she prefers to knit at home and watch online tutorials if needed.

#### Do you spend time with people who share the same activities as you? How important is the social aspect to you?

He doesn't have a specific group, but he has some friends who share similar interests, mainly **ex-colleagues.** The social aspect is **not crucial** for him, but it's nice to connect with like-minded individuals, occasionally, and have insights and useful feedback.

Her sister-in-law is into knitting as well, and in the past, they used to meet regularly to work together and chat. Anyway, the social aspect is **not relevant** unless it's related to sharing and selling pieces.

#### **SELLING YOUR OWN PRODUCTS:**

#### Would you consider selling your products online? Would you be willing to pay for a service that allows you to sell your product?

He **may consider selling** some of his woodworking projects online if there's a platform that makes it easy for him, even though he's not actively looking for it. He'd be willing to **pay** for a service that provides the necessary tools and support.

She would probably sell her knitted items online if it's easy to set up and manage. She might be willing to pay for a service that provides step-by-step guidance if it were at a convenient price.

#### Do you imagine using this platform more on your smartphone or computer?

He'd prefer using his **smartphone** for most tasks, including browsing and communicating, but can see the advantages of using a **computer** for others.

She's more comfortable using her **smartphone**, as she's more accustomed to it.

## What measures should a website take to gain your trust in using it to sell your products?

To gain his trust, a website should have a straightforward and **secure payment system**. Additionally, customer support and a user-friendly interface would be essential for a positive selling experience. In his previous job, these were key aspects when dealing with partners and sellers.

A website should have **clear instructions** on setting up an online store and managing inventory. She wants to stay up-to-date on sales. Additionally, it should provide tips and resources for promoting and marketing her products effectively.

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