

Health Care System in Portugal for People with Motor Problems

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Abstract

Purpose: From a social and labor inclusion perspective, the article presents a digital prototype conceptualized to provide a “Diagnostic Page”, which delivers various prescribers and suppliers of support products that mitigate the problems of the respective patients. It also provides a “Patient Card Page”, where all the information about financing the respective products is placed, as well as all the documents likely to be needed for the commercial transactions to be carried out by all the parties involved. It also aims to provide a digital medium to grow a community in this niche market. In the action research methodology approach, the prototype was taken to funding competitions and conferences, where interviews and surveys were carried out, and a number of suggestions were collected on the type of platform to consider in order to respond to the concerns and needs of end users, such as patients, prescribers, suppliers and associations. **Methods:** The digital platform where the system is hosted uses algorithms that, on the diagnostic page, consider keywords used by patients and return a series of prescribers and suppliers of support products, in which the corresponding percentage of attenuation is taken into account and the best solution found to overcome the level of difficulty presented by the respective patients is delivered. **Results and Conclusions:** It is hoped that, with this platform, people with motor problems will be able to obtain their diagnosis instantly, through the algorithm implemented, and that they will immediately be provided with a series of prescribers, suppliers and support products best suited to their needs, as well as all the information or conditions necessary to purchase or finance them. On the other hand, prescribers, suppliers and associations have an online platform where they can offer their consultations, products and other support as freelancers who are part of a community.

Keywords

Health Care System, Marketplace, Support Products, Digital Community,

1. Introduction

This project was based on the master's thesis "Modelo de Diagnóstico para a Melhoria do Desempenho do Colaborador no Setor Design e Publicidade." Researcher: Beatriz Ferreira (beatrizrvf@gmail.com) [1]. The proposed digital prototype was created on the basis of a market analysis carried out by various entities, such as suppliers of support products, associations, prescribers and patients. This prototype was also presented, by invitation of the European University and IADE Institution, to funding competitions and conferences, where it received very favorable feedback, having been considered innovative and an asset for trying to use existing support products to empower people in their daily lives and in their work area. The research work tried to present a solution to help people with motor and psychosocial disabilities integrate into society and the world of work, promoting ease of communication between all those involved. The medical community will also have, in this system, an assessment method, an intuitive diagnosis, and a database covering all the information about patients, suppliers and their support products.

2. Problem Identification

In areas like health and work, people with motor disabilities still need a lot of help to reach social inclusion and non-discrimination. In Portugal, there is no community awareness of their existence or the challenges that are presented to them on a daily basis. Those who live with some type of disability in Portugal face challenges in accessing education, employment, and culture. More than 30% of this population is at risk of poverty or social exclusion. According to the Observatory of Disability and Human Rights (ODDH), the rate of risk of poverty or social exclusion for families with motor disabilities in 2021 was 30.5%, almost double the estimate for the general population of 18.8% [2]. The model proposed in this article addresses new forms of interaction between people with motor disabilities and their prescribers, suppliers, and associations. It also identifies procedures to speed up their inclusion in the work area and social sector, where they need adaptations in the tasks they perform or in the materials they use [3]. To respond to these concerns, we formulated the following research challenges:

- Identify types of procedures that facilitate the inclusion of people with psychosocial and psychomotor problems in society;
- Design a space for sharing information and trading among all users of the system;
- Conceptualize a diagnostic prototype, both informational and commercial, with an interface that is simple to use for all stakeholders.

From the market analysis, it was possible to conclude that 52.9% of the entities

interviewed considered the topic relevant and useful from the perspective of social inclusion. The proposed solution contributes to the definition of communities for sharing information and managing knowledge about patient specificities by delivering a proposal for integrating the “Patient Card Page” described in **Figure 4** and the “Diagnostic Page” illustrated in **Figure 2**, embedded in a digital platform common to all stakeholders.

3. Project Scope Characterization

3.1. Patient/Client Target Audience Characterization

This prototype, although it brings together a range of users, is primarily aimed at mitigating the handicaps that prevent people with motor disabilities from being autonomous in their lives. These are the patients who will be included in the digital platform and will be able to purchase support products and schedule medical appointments. These clients present degenerative, chronic, temporary, or acquired physical or mental pathologies, namely musculoskeletal disorders, fine motor skills disabilities, and psychosocial problems, which have an impact on their motor abilities, specifically problems related to dexterity and motor coordination, precision difficulties, muscle tension or weakness, spasms, tremors, atrophy, muscle degeneration or paralysis, heart or breathing problems, high blood pressure, inflammation, restlessness, dizziness or tingling.

Table 1 shows the common limiting factors in pathologies that cause functional movement disabilities. The colored rectangles show the correspondence between pathology and symptomatology. The first symptomatology refers to the one that has the highest prevalence and ends up being common to all pathologies. In Portugal, around 5.9 million have musculoskeletal rheumatic diseases: more than 40,000 people have arthritis and 1 million have osteoarthritis problems; around 150 people have muscular dystrophy; 39% have spinal cord injuries with a high prevalence of neuromuscular diseases, which results in 100,000 patients; 8000 have multiple sclerosis; 150,000 with huntington’s; parkinson’s with 20,000; motor dysplasia with 150 people; 300,000 have fibromyalgia; myasthenia has 300 individuals and myositis 14.9%; neuropathic 8%; 20,000 have cerebral palsy; 5% of people have essential tremor; 25,000 suffer from generalized anxiety; 21,000 have depression; people with bipolar disorder make up 5000; post-traumatic stress 20%; 57% have burnout symptoms and individuals with eating disorders 4.485. According to [4], mobility disabilities are the most penalizing: only 7.9% of people with disabilities are active and 7.1% are employed; the population aged 15 or over with a disability who travel to work or study represents only 3.2% of the total population who do so: 13.3%. Another study [5], says that 12,667 people with disabilities are registered as unemployed in Portugal, and 13,950 people with disabilities attend occupational activity centers in the network of social services and facilities.

3.2. Professionals Target Audience Characterization

Three different professionals were identified as the target audience for this project:

Table 1. Pathologies and symptomatology related to the patient or client audience.

Condition	Psychomotor Pathologies	%/N ^o Portugal	Symptoms	Correspondence
Degenerative Pathologies	Arthritis/Osteoeriosis	40 MM	Reduced Dexterity	
	Muscular Dystrophies	150	Affects Movement	
	Neuromuscular Diseases	100 MM	Muscle Tension/Stiffness	
	Sclerosis	8 MM	Muscle Weakness	
	Huntington	150 MM	Feeling of Imbalance/Lack of Motor Perception	
	Parkinson	20 MM	Spasms/Uncontrollable Movements	
Chronic Pathologies	Motor Dispraxia	150	Tremors	
	Fibromyalgia	300 MM	Joint pains/Muscles	
	Myasthenia	300	Myocardial Infarction/Marked Fatigue	
	Myositis	14.9%	Muscle Atrophy	
	Neuropathies	8%	Nauseas	
	Cerebral Palsy	20 MM	Muscle Numbness	
	Essential Tremor	5%	Progressive Degeneration of Muscles	
	Mental Pathologies	Anxiety	25 MM	Hypertension
Depression		21 MM	Inflammation/Swelling	
Bipolar Disorder		5 MM	Dizziness	
Pos-traumatic Stress		20%	Tingling	
Burnout		57%	Psychomotor Agitation	
Eating Disorders		4.485	Limb Paralysis	

medical prescribers, suppliers of support products, and aid associations for people with motor problems. Medical prescribers are individuals with a career in medicine who diagnose the patient and issue a prescription, which can be for both medicines and support products [6]. The Electronic Medical Prescription (PEM) is the main prescription system in the Portuguese Health System, accounting for more than 50% of all prescriptions and being made available to all SNS institutions by both the DGS and Infarmed [7]. In Portugal, there are more than 11,000 prescribers, either in paper or digital format, providing their services to these patients. Manufacturers or suppliers of support products are organizations that

design and distribute the respective support products that help patients; in Portugal, there are 17 organizations that sell them [1]. Technical aids for support products fall within the scope of the Support Products Allocation System (SAPA), created by Decree-Law 93/2009 of April 16 [8]. Finally, 18 organizations were verified in Portugal, which are associations that help people with motor disabilities in their daily lives [1].

3.3. Assistive Products

Support products are fundamental instruments, equipment or technical systems that make it possible to compensate for or mitigate functional limitations and restrictions, in terms of participation in social or labor life, for people with disabilities or motor impairments [9]. Support products are prescribed by health centers, hospital units and multidisciplinary teams, which work with the prescribing entity and have at least two technicians. The prescriptions must include reports, a certificate showing the patient's degree of disability, their latest income statement, budgets for purchasing the product, information about it, and any other documents needed to acquire it, with or without financing, all from the current year of the patient in question. Support products should ideally be reimbursed at 100% and must always be an individualized process that considers the specific needs of each patient [7]. This data is important to achieve the goal of delivering the best solution on the "Patient Card Page" (Figure 4), combining the action of delivering the most suitable product suppliers or prescribers to customers or patients while also taking into account the reservation of their personal data. There are currently several products on the market, such as manipulators, pointing devices, keyboards, drive supports and software, that complement the use of hardware devices. In the workplace, there are ergonomic, thermal, lighting, noise and spatial structure products [10]. All these types of products that affect the well-being of individuals with motor problems were identified in order to support the algorithm contained in the "Diagnostic Page" (Figure 2) of the platform system created.

3.4. Digital Platforms: Marketplace System

Digital platforms are business models that connect and enable interaction between different parts with major network effects, creating communities. Through these marketplaces, users interact and contract. All platforms need technology, and for this, APIs are extremely important, as they act as internal and external connection interfaces, enabling digital business. Online platforms seek to facilitate the exchange of goods, services, or social currency to generate increasingly better results [11]. It has become increasingly common to work as a freelancer in Portugal, also known as an independent or self-employed worker. In addition, many young entrepreneurs are following this path, diversifying their opportunities and professional experiences at the start of their careers [12]. The digital transformation is being reflected in work environments all over the world. Being

confined to an office is a thing of the past; nowadays, employees demand a dynamic environment where flexibility is reflected in schedules, spaces and ways of working [13]. The Marketplace business model is a useful resource for companies, helping to boost online sales. For users, marketplaces are more practical because they can see the offers of several sellers on a single site, making it possible to compare, choose the best price, buy from several different shops, and make a single payment [14]. In the digital prototype implemented in this project, the marketplace system was adopted not only for the purposes of community among the niche described but also as a commercial opportunity, allowing the platform owners to charge a percentage of the value of commercial transactions made, namely commissions on product sales and appointments, from 9.5% to 30% for each (Figure 3(c)) and (Figure 3(d)).

4. Predictive Platform Proposal

Based on the research challenges listed in Section 2, a study was initiated to create a specific digital platform to help people with psychomotor and psychosocial disabilities while simultaneously providing a digital space to sell products and book medical appointments. The proposed model identifies informational and commercial artifacts and aggregates them in a digital information and knowledge base to solve these people's daily problems, both in terms of domestic activities and work productivity, and gives health professionals the opportunity to promote themselves as freelancers in a space also dedicated to the dissemination of support products and medical specialty services.

The aim is to contribute to the Portuguese health system in the field of motor disability by providing its service providers, as well as patients, access to the records on the "Patient Card Page" (Figure 4), and also the possibility of providing evaluation mechanisms through the "Diagnostic Page" (Figure 2), that the user will fill with keywords, obtaining the results in a simple, autonomous, direct, and concise way. This page will provide access to medical appointments and support products that correspond to the "% Attenuation" according to the keywords placed in the fields by users or patients. This action will help implement solutions, considering the best cost-benefit ratio for all stakeholders.

A prototype of a marketplace platform was built, with a software system incorporated. This software illustrates how the patient arrives at the final result of their medical assessment through a matching mechanism of keywords delivered and created by prescribers and suppliers of support products in their user area. Patients will still be able to access their "Patient Card Page" (Figure 4) and get a more detailed and reliable diagnosis by consulting the appropriate professionals in their field. The marketplace allows patients, prescribers, and suppliers to have a space dedicated to their respective communities, where they can access a network of information and resources, such as: "Sales or Queries Page", "My Account" (User Profile), "Your Ads" (Paid Advertisements), "Messages between Colleagues and/or Patients", "Profile Reviews", "Reports and Statistics", "Patient

Card” and “Financial Data”.

As shown in **Figure 1**, the platform will be able to integrate 3 different users. The first will be the patient, who will have access in their user area to their data, being able to update, edit and fill in data such as “Location”, “Payment Methods”, “Orders or Returns”, and “Refunds”. They will also be able to “Manage Notifications” have access to their “Patient Card” and “Patient Lists” (possible appointments and purchases of support products), add “Reviews” and see the “Latest Reviews”, access their “Messages and Chat”, view their “Friends, Prescribers, and Suppliers” and finally “End or Exit Session” on the platform, these functions can be seen in **Figure 4**. The second system user is the professional, who will also have a user area where they can register the manufacturer and/or supplier of support products, as well as the prescriber and/or doctors, where it will be possible to manage the “Account”, “Location”, “Certifications”, “Financial Data”, “Transactions”, “Patients Card”, “Paid Ads”, “Sales or Queries Page”, “Orders and Returns”, “Reports”, “Messages and Chat”, access to “Colleagues” and “End or Exit Session”. The third user, the associations, will have access to their “User Profile”, “Location”, “Financial Data”, “Orders and Returns”, “Messages and Chat”, “Reviews”, “System Notifications”, access to their “Patients”, and “Session Ending” in the marketplace, functions shown in **Figure 3**.

Figure 2 describes the “Diagnostic Page” architecture (**Figure 2(a)**); this page is incorporated into the platform’s system, where there are two main structures. The first is where the user or patient can fill in the blank fields with the keywords inherent to their condition. These keywords can be chosen from a predefined list, or if the words can’t be found on the list, the patient can type them into the free text field, which is defined for this purpose. In this first structure, patients will have to define in the respective fields their “Pathology”, “Predominant Symptom”, “Gender”, “Birthday Date”, “Location” and “Symptoms List”. If they can’t answer all the questions, they can leave some blank fields. These fields will

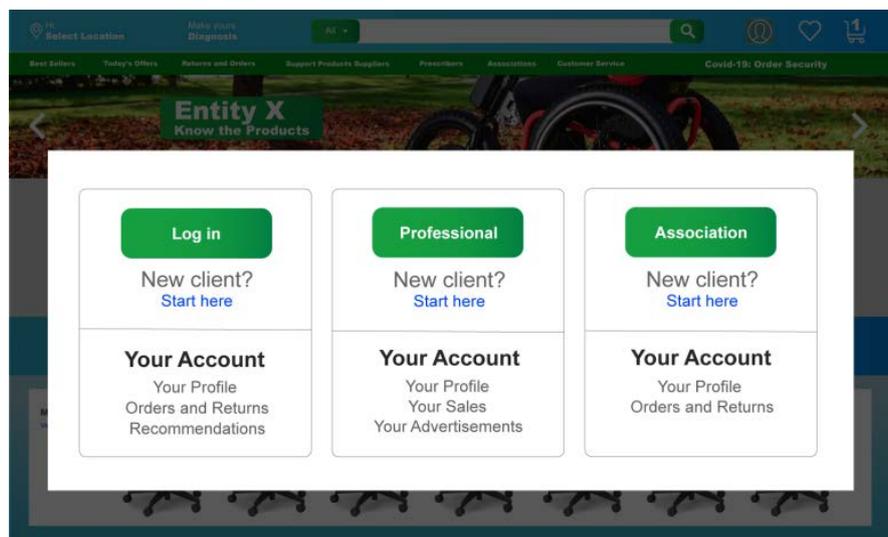


Figure 1. Login to the health system homepage.

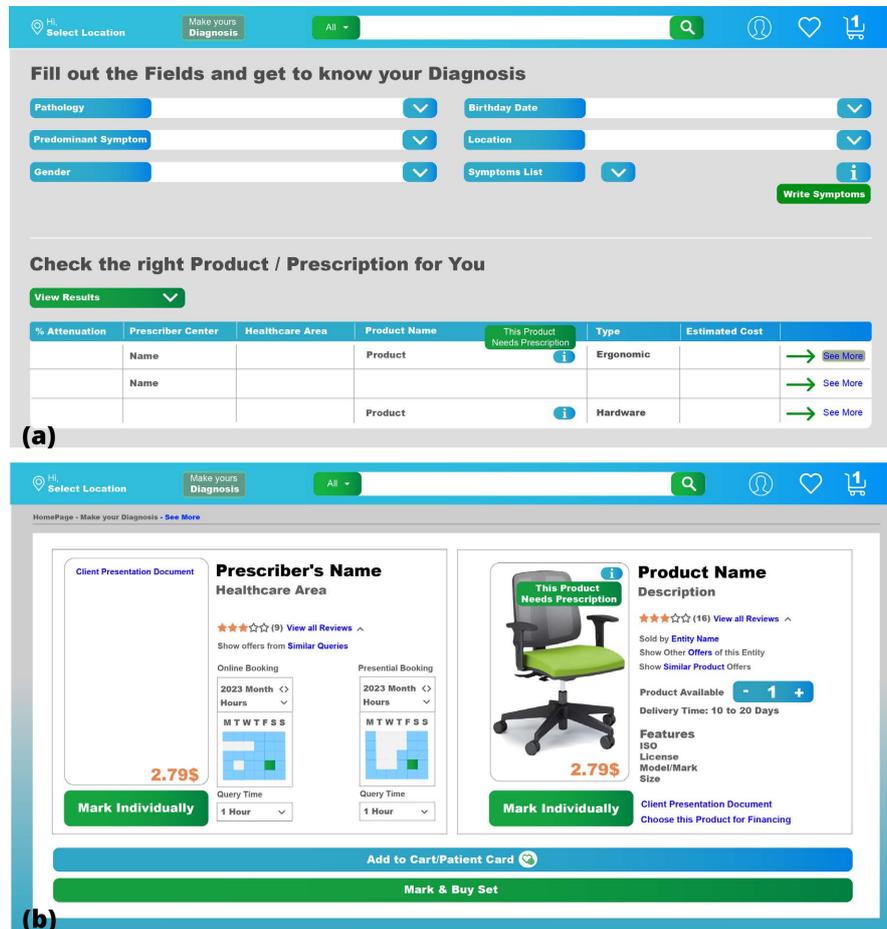


Figure 2. Diagnostic page (a) and the sale of products (b) in the health system.

be used as input parameters for the diagnostic algorithm to match the appropriate prescribers and suppliers. The second part of the structure of this page is the result of filling in the keywords entered by the patient, matching the keywords used by the professionals in their user profile (Figure 3), from whom they are selling their products and/or consultations. This matching is done by calculating the “% Attenuation”. The structure then delivers the “Prescriber Center”, “Healthcare Area”, “Product Name”, “Type” and “Estimated Cost”, functions shown in Figure 3(e). Once the users click on “See More”, they will be redirected to a page with detailed information about the prescribing doctors and support products (Figure 2(b)). On this page, the patient will see more information about a particular prescriber and support product, such as: the patient can choose whether they want online or face-to-face queries, find out about the prescriber’s or doctor’s availability, and book one or more consultations. The user can see the “Product Available” and “Delivery Time” of the product and can find out more about the features, such as “Size”, “Model/Mark”, “ISO”, “License” and “Prices”, choose if they want the product to be “Financed” by the Portuguese state, find out if the product has to have a doctor’s prescription if they want to buy it, and finally, the patient can see the supplier’s or prescriber’s “Presentation

(c)

(d)

(e)

Figure 3. Profile page: Appointments of the prescriber (c), Sales of the suppliers (d), and the popup for filling in the keywords (e) in the health system.

Document” and view their “Reviews”. Also on this page, the user can bookmark or buy the products individually or as a set, and they can also bookmark the products on this “Diagnostic Page” (Figure 2) to be included in their “Patient Card Page” (Figure 4).

Figure 3 shows the user professional area, where medical professionals can create their agenda within the user profile, and suppliers of support products can create the sale of a product, inserting all the functionalities inherent to it. On this page (Figure 3(c)), the prescriber can also publicize the work regime, disclosing the types of medical consultation practiced for the patient to choose from: on-line, face-to-face, or mixed, and will be able to transmit this possibility to the patient through their medical agenda, where they will put the respective color and number (for people with color blindness to understand the meaning): “Blue Color|Number A = Available”; “Gray Color|Number N = Not Available”; “Red Color|Number R = Removal or Deselection of Appointments already Scheduled”. Prescribers can also offer a “Discount” on consultations, enter the “VAT” value,

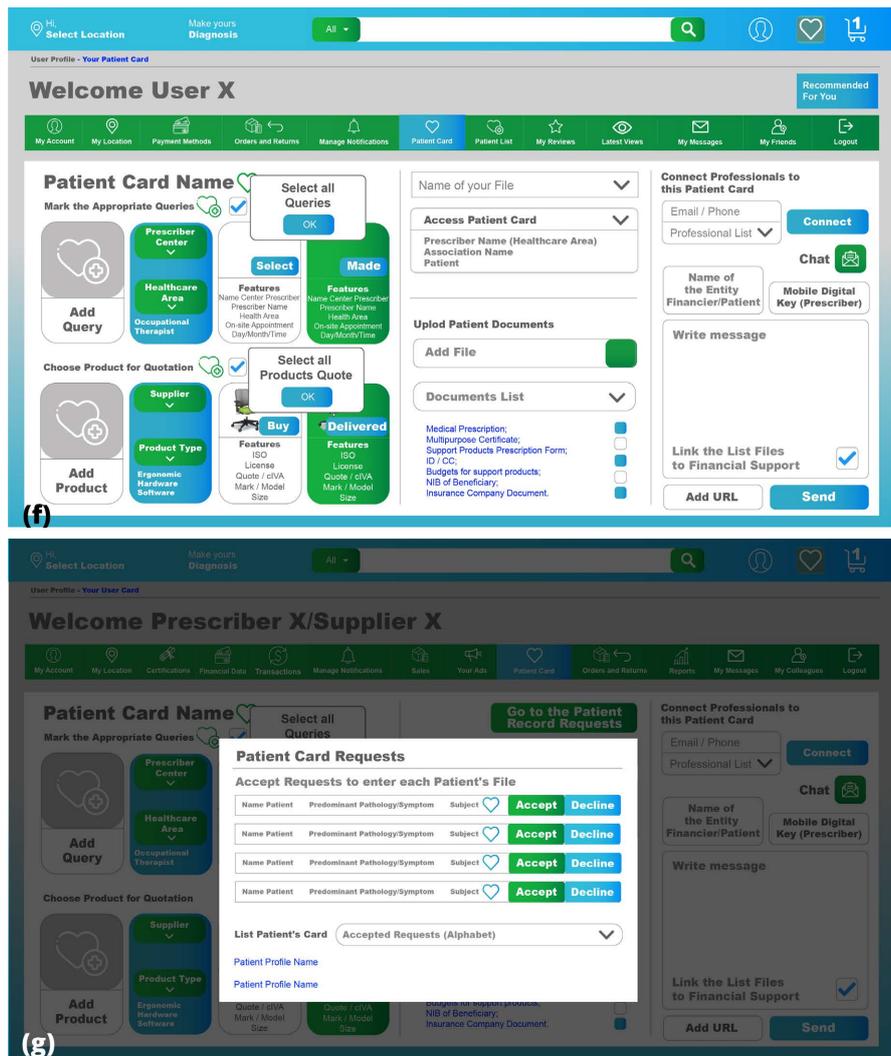


Figure 4. Patient, Prescriber, and Supplier Card (f), and the requests for patient files (g).

and inform the average “Time” of the appointment. Will also have a field where it can advertise the consultations in various places on the platform, such as on the “Homepage”, “Diagnostic Page” (Figure 2), “Patient Card Page” (Figure 4) or “General Appointments Page”. The supplier of support products (Figure 3(d)) will be able to submit a product by “Uploading a Photo of the Product”, writing a “Description”, choosing “Keywords”, “Product Name”, “VAT”, “Discount”, “Model”, “Mark”, “Quantity” in stock, “ISO”, “License”, “Size”, “Delivery Time”, and whether it will be “Financed” by the Portuguese state. Just like the prescriber, the supplier, within their registration area, can choose whether the product will be displayed on the “Patient Card Page” (Figure 4), “Homepage”, “General Product Sales Page” or the “Diagnostic Page” (Figure 2). Also in the supplier’s profile area, they will have access to purchase orders for their products and can accept or decline these orders from their customers. Once prescribers and suppliers have “Submitted” their inquiries or sales, a pop-up (Figure 3(e)) will appear with some other fields to be filled in. These fields will be: “Pathology”, “Predominant Symptom”, “Gender”, “Birthday Date”, “Location” and “Symptoms List”. These are the fields that will deliver the correspondence by calculating the “% Attenuation”, between the consultations or products created by the professionals and the keywords placed by the users or patients on the “Diagnostic Page” (Figure 2(a)).

Figure 4 shows the “Patient Card Page” (Figure 4(f)) to which all users of this platform will have access. On this page, both the patient and the prescriber or supplier can create a “Patient Card Page”, giving it a “Name” and identifying the product or service they want to use or offer. This “Patient Card Page” can be accessed by any entity or patient that has created or received a request to be part of it. In this tab, all users take an active part in the process of acquiring medical services or products, *i.e.*, professionals can suggest the addition of consultations or products so that a particular patient can book them or buy them if they are of interest to them. In order for this process to take place, in the first step they have to “Add Medical Appointment or Product”, the second step is to “Search for Prescriber Center” and “Healthcare Area” or “Search for Supplier” and “Product Type”, to add to the “Patient Card Page”, the third step is related to the “Purchase” or “Scheduling” of the products or medical appointments chosen during the second step, here they can also view all the features of that product or medical appointment. Finally, in the fourth step, the completed process can be verified, where the user is shown that a certain product or query is being delivered or has been booked. In this process, where products or consultations can be purchased or booked, the patient will be able to make the purchase or booking individually, or they can choose to buy or book a set of several by clicking on the “All Products/Consultations Selection Box”. Also on the “Patient Card Page”, users have access to “Connect Professionals”, through which they can ask other professionals to join a particular patient file. They will also have access to “Chat” and “Email”, where only prescribers or suppliers will be able to enter the “Mo-

ble Digital Key”, which is a simple and secure authentication mechanism used on many public and private platforms. All users can fill in the “Name of the Patient’s Financing Entity”, the “URL”, “Write Message” and “Link” all the files selected from the patient’s list of “Documents”, to be sent to another prescriber or supplier or even to some financier of support products, in this case, the Portuguese state. All users also have access to the patient’s history and can “Upload Files”. Finally (**Figure 4(g)**), prescribers and suppliers of support products have the possibility of checking all the files in which they are included in their “Patient Card Page”, and the possibility of accepting or declining all the requests received to be included in a particular “Patient Card Page”.

5. Validation Methodology

This project was based on the master’s thesis “Modelo de Diagnóstico para a Melhoria do Desempenho do Colaborador no Setor Design e Publicidade.” Researcher: Beatriz Ferreira (beatrizrvf@gmail.com) [1]. Qualitative methods were used in the research: surveys, graphs and the scope of the thesis project. This article focuses on the target audience: patients, prescribing professionals and suppliers, technologies, support products, and digital platforms, namely the marketplace. Two surveys were drawn up for the project’s stakeholders. The first survey was sent to associations and their patients for prior validation and to collect suggestions for improving the “Diagnostic Page” (**Figure 2**), which was partially validated. The second survey covered prescribers, suppliers of support products, companies that include design and advertising professionals (in order to better understand the working environment of people with motor problems), associations, and patients. These partially validated its usefulness, applicability, level of usability of the interface, the correspondence of keywords between prescribers or product suppliers and users or patients, as well as all the information that should be included in the system, namely, the “Patient Card Page” (**Figure 4**), so that it works clearly, concretely, precisely, and without breaking the confidentiality policy that a Marketplace must contemplate.

Table 2 summarizes the contacts made with entities, as well as the interviews and surveys applied. These contacts were made to understand how the current healthcare system works in Portugal for people with motor problems, and the contact they have with their prescribing doctors, product suppliers and support associations. The design and advertising professionals said that they are currently moving towards more innovative approaches, namely the possibility of remote working, flexible working schedule, and management by objectives, so the marketplace system incorporated into the prototype, would be very useful (**Figure 3**). The associations collaborated and validated the model by making suggestions in terms of parameters to analyze the benefits for patients. Prescribers and product suppliers validated the “Diagnostic Page” (**Figure 2**) in terms of the products that would support their patients in their daily lives and workplaces. Finally, they said that the scope of the project is important, since there is currently

Table 2. Contacted entities.

Organizations and Target Audience	Total Contacted	Answers Surveys and interviews
1. Survey	18 Associations + X Patients	18
2. Survey	105	47
Patients	30	22
Prescribers	18	1
Support Product Suppliers	17	3
Associations	18	10
Professionals Design e Advertising (labor)	22	11

no entrepreneurship aimed at improving the standard of living of people with motor disabilities.

To validate the digital prototype, it was taken to funding competitions and conferences, namely CISTI'2019—“14th Iberian Conference on Information Systems and Technologies”, UNIDCOM’s conference—“10th International Conference Senses & Sensibility 2019: Lost in (G) localization” with the theme of design for health and well-being, and the “Born from Knowledge 2019” competition, with the category of materials and advanced production technologies, with this project reaching the semi-finalist stage with 3 mentorships. Participation in the “Montepio Acredita Portugal, 2020” competition, where the project was a semi-finalist with 9 mentorships. These competitions led us to look at the prototype from a more commercial perspective in terms of its market niche. Based on the results of the contacts with the entities, the final digital platform was created, as shown in **Figures 1-4**. It was developed, adapted and improved based on suggestions from the market in an exchange of information regarding its construction, digital structure, UX/UI, technologies, financing possibilities for the prototype, and ways forward.

6. Discussion

Only parts of the prototype created were taken to various entities, such as suppliers of support products, associations, prescribers and commercial vendors, so that they could evaluate the theme, the visual design of the platform, the correspondence of the keywords with the “Diagnostic Page” (**Figure 2(a)**) created by the algorithm to deliver the most suitable support products later, and the “Patient Card Page” (**Figure 4(f)**) where all users can interact, thus making suggestions for improvements to the platform. However, there was no discussion of the Marketplace aspect of this topic in terms of prices, highlights, reviews, product or consultation pages, purchases and returns, etc. Can we create an online platform for sales and purchases, appointments, patient cards and diagnostics created

using keywords and their matches within a Marketplace system? Or will we have to implement another software system, such as SaaS?! Or some other specific programming to meet the respective needs and complexities that arise? Another critical aspect of this prototype is time and adherence to the platform, i.e., for this to work, there needs to be users from all areas on it. For example, a patient who wants to join this platform but does not yet have a suitable prescriber or supplier within it is going to have a problem. Before even putting the platform online, it would first have to be sold specifically to prescribers and suppliers, with the promise that patients would later use it. Once these two issues have been overcome, the platform will serve to grow a community that not only helps people with motor problems in their day-to-day lives and at work by delivering the right support products for them, but also helps prescribers and product suppliers to obtain a medium where they can grow professionally as freelancers, as well as the commerce inherent to all these users.

7. Conclusion

Despite the technological evolution and rapid dissemination of information that characterize today's world, people with motor and psychosocial problems still face basic problems in ensuring their independent subsistence, both in their daily lives and at work. The research carried out in this article took place among the target audiences, namely patients with motor problems, prescribing doctors, product suppliers and support institutions (associations), as an instrument that brings together all the means already on the market and is an auxiliary tool for diagnosing, enabling and accessing means of communication to overcome the handicaps presented. Research was also carried out into existing support products and digital platforms in order to work with an up-to-date and reliable base of information, guaranteeing its innovative nature. In this domain, the project carried out describes a niche of people in the consumer market who need to take advantage of support products in their daily personal and work lives. The online/Marketplace platform can be the solution to host all the necessary information for all stakeholders in the process of addressing their needs, and respectively the "Patient Card Page" (**Figure 4**) and the "Diagnostic Page" (**Figure 2**) will be the key to delivering a more autonomous, intuitive and commercial patient assessment. The document presents a set of statistical data that describe the relevance of the topic from a social and economic point of view. Based on the results of the investigation, particularly the conclusion of the analysis of the interviews, surveys, conferences and funding tenders, the need was perceived to conceptualize a solution to solve the identified social problem and to standardize the risk analysis procedures, incorporating specific recommendations relating to the psychomotor and psychosocial embarrassment of the analyzed person. In the future, it is intended to build, develop, test, and implement the system in the daily lives of the participants. At the moment, the prototype has not received any financial support, and for this, it is necessary to obtain funding from an expe-

rienced entity, which makes its concretization possible as well as guaranteeing the protection of copyright.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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