

Patient Innovation Lab

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Organisation: Patient Innovation

Country: Portugal

Level of government: Central government

Sector: Health

Type: Communication, Digital

Launched in: 2016

Overall development time: 1 year(s)

Link to the innovation's website

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Description

The Patient Innovation Lab is an online ecosystem, nonprofit and of free access, where patients, caregivers, and collaborators have a place for innovation and invention. This digital worldwide network enables individuals with health-related problems to find all the resources needed in the creation of innovative solutions to improve their and others' quality of life. With the sharing of solutions and with the democratization of the technology, the Patient Innovation Lab's mission is also to empower patients and caregivers to become entrepreneurs. The users were now also sharing ideas they had and asking for help bringing them to life and, some, even to the market. The need to develop an online ecosystem where patients and caregivers would be able to co create and share ideas led to an improvement "The Patient Innovation Lab", a place where everyone can take action by giving shape to their ideas to cope with a disease.

Not only are we the first health online platform in the world that focuses on identifying and sharing innovative solutions, developed by patients or caregivers, regardless of their condition but also the first co-creation virtual hub that brings together all the resources a health innovator might need, from ideation to the marketplace. Solutions have been co-created at the Patient Innovation Lab, and patients who through their innovations have inspired the rest of the society. We challenge the traditional producer-centered view of healthcare innovation and offer an alternative view that moves the patient from the margins of the medical system (and the margins of the innovation process) to its center. Our project has the potential to revolutionize the way we look at healthcare and the role of patient innovators. Our project will have a significant impact on the shift in the balance of power towards the patient.

Why the innovation was developed

- After realizing that many patients and caregivers create solutions to overcome their health challenges, we also found out that many others have ideas that need to be worked on.
 - Innovators often have ideas they want to develop but do not know how, and they do not have the resources to. That is what the Patient Innovation Lab wants to provide: A virtual space where patients and caregivers from all over the world can interact and help each other, and also where we can help the ideas to become a new product.
 - The Patient Innovation Lab is also meant to help the solutions' creators to get their innovations to the market, and eventually start their own business, increasing the number of the solution's potential beneficiaries.
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Objectives

Improve access, Improve social equity, Improve user satisfaction, Increase citizen engagement, Other, Support economic growth

- Improve patient's quality of life
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Main beneficiaries

Academia, Businesses, Elderly people, Government bodies, Low-income groups, People with disabilities

Results

Service quality

Accessibility:

- Since 2014, anyone, regardless of their country of origin, has been allowed to visit the website or to become a registered user of Patient Innovation. Any user can visit the website and read the solutions shared by registered users.
- After registering to use the site, users can share solutions, exchange internal messages with other members, comment and rate content published by others, and receive notifications when others update new content.
- This platform growth led to the creation of the Patient Innovation Lab: An online ecosystem where patients, caregiver and collaborators can work together and bring their ideas to reality, and also to the market, by taking advantage of the knowledge and technology democratization.

Responsiveness:

- Regarding the website, it was designed and developed to be accessible by all devices. All the web pages are displayed correctly and are easy to use, regardless of the device.
- To respond effectively to users and to create a more straightforward relation with them, we have created accounts on the social media to help them quickly and efficiently. Patient Innovation team analyzes all the suggestions and problems reported by users on social media or via email, to identify website concerns for improvement or development.
- Patient Innovation has medical doctors, engineers, communication and marketing experts to help users through the process of sharing effective health-related solutions with the rest of the community.
- The quality service and responsiveness was improved also by the development of the Patient Innovation lab, an online space that empowers patients, caregivers and collaborators by getting them to work together, and bring their innovative solutions to the market.

Development

Design

Governments and companies have long assumed that ideas for new products and services originate inside producing firms and consumers have been seen as passive recipients, merely buying and consuming what producers create. However, recent research found that patients and caregivers are important developers of clinically valuable innovations. With this in mind, Pedro Oliveira decided to create a platform where all this innovation could be shared and disseminated, so many patients could benefit from these solutions. The Patient Innovation community was born and grew up fast. Along with this growth, in the past two years, many patients and caregivers shared their ideas and prototypes and their will to diffuse them in a larger scale. Patient Innovation platform was the place they went looking for help throughout the creative process. The many requests from patients and caregivers worldwide made Patient Innovation team think about creating an online hub to foster the collaboration process. Design time: 2 month(s)

Testing

- Trial 1: Thermal pockets - a patient who suffers from Chacot-Marie-Tooth disease had an idea to cope with his condition. So Junitec, a group of engineering students, partnered with the Patient Innovation Lab (PIL) and developed heating gloves that the patient now uses when playing the piano.
- Trial 2: Ostom-i - this patient suffers from Crohn's disease. He came up with Ostom-i Alert: a device is attached to any ostomy bag and warns the patient when his bag is close to being full. The patient reached out to the PIL to bring information about his product to the Portuguese and Brazilian hospitals and medical supplies companies.
- Trial 3: Morph Weels - a citizen invented this solution, the Morph Wheels (foldable wheels) for his bicycle when he was a graduate student, and then adapted it for wheelchairs. He contacted the PIL to bring information about his product to the Portuguese and Brazilian hospitals and medical supplies companies.

Testing time: 4 month(s)

Implementation

Tools used:

- We used the existent Patient Innovation platform, a solution-sharing website, as the environment to launch the Patient Innovation Lab. This website is specialized in patient-created solutions, which other users can comment on and rate for quality.
- Patients and Caregivers post solutions they developed to cope with a challenge imposed by a disease, usually accompanied by visual aids, and then interact through comment sections below each solution's post.
- In addition to Patient Innovation platform, we diffuse the work in scientific meetings among health professionals and scientific community and also use the social media to raise awareness around the lab and foster an ever-growing community of creative experts.

Resources used:

- This project relies on a multidisciplinary and expert team, as well as an advisory board that counts on prestigious backgrounds and includes two Nobel laureates.
- Patient Innovations employs full-time and part-time staff, and also has a group of medical professionals, who ensure the solutions that are published online are safe.
- The Patient Innovation team, who feature well-documented, welcome new users, and help out around the site, is also responsible for the Patient Innovation Lab.

Implementation time: 6 month(s)

Challenges and solutions

- One of the challenges we encountered was that we had no guarantee that the solutions shared on the platform were safe for others that might want to replicate them. Therefore, we integrated in our team medical professionals that guarantee that only safe solutions are shared within the online community.
 - The process of co-creation is not always a successful one. After several trial and error experiments we figured that we had to include the participation of experts from different areas that would help to improve the solutions, reduce the costs.
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Partnerships

Multiple partners

Academics and Research Bodies, Other Public Sector, Private sector

Patient Innovation (PI) has been awarded the High Patronage of the President of Portugal. Additionally, PI is supported by: the Fundação para a Ciência e Tecnologia (FCT); the Portugal programmes at Carnegie Mellon and MIT; NOVA Medical School, Lisbon; Peter Pribilla Foundation; Fundação Calouste Gulbenkian; Research Council of Norway. The Advisory Board includes Prof. Aaron Ciechanover (Nobel Laureate in Chemistry), Prof. Eric von Hippel (MIT), Prof. Katherine Strandburg (New York University), Prof. Lee Fleming (University of California, Berkeley), Sir Richard Roberts (Nobel Laureate in Physiology and Medicine) and Prof. Robert Langer (MIT).

Patient Innovation signed collaboration protocols with patient associations in the USA, UK, Australia, France, Malaysia, Portugal, Serbia, Croatia, Brazil, Bosnia, among others, who help us reaching out to their members (patients and caregivers). Patient Innovation has been featured in conferences around the globe. We also have received financial support from several institutions: Carnegie Mellon Portugal program; Research Council of Norway; Peter Pribilla Foundation; Fundação para a Ciência e Tecnologia; Fundação Calouste Gulbenkian.

It was also invited by the Science Museum from London to participate in an exhibition called Beyond the Lab: The DIY Science Revolution, which explores the increasing number of inventions and scientific discoveries that are being made by hackers, patient groups and ordinary citizens.

Lessons Learned

Lessons Learned

- We need to reach out additional patients as well as medical institutions through a more intensive communication. We also need to find or create mechanisms that will help find innovators in underdeveloped countries, that have limited or no access to communications.
 - The main barrier so far has been the process of screening and validating the solutions due to the different legal and regulatory mechanisms that can constraint/foster the knowledge transfer and diffusion of innovations developed by patients to the market.
 - All the steps in the innovation process have their own unique challenges. Partnering with more experts, private sector and Government bodies is essential do the success of the solutions. One of the aims of the creation of the PI Lab is to fight these constraints, by reaching to more people and giving them resources to work on their ideas and improving their lives, as well as others', stimulating co creation.
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Conditions for success

- For the past two years the project has been supported by academic and research grants and sponsors; we intend to keep on relying on this kind of funding.
 - We need to nurture and expand our network, bringing together all kinds of partners in this mission. And we need to grow our network of experts in specific areas, so all challenges that an innovator faces can be answered in the Patient Innovation Lab.
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Other information

Two testimonials:

Sir Richard Roberts (Nobel Laureate): "If there's a forum whereby they can share their solutions, then that can be very helpful to others in the same situation, who didn't find any solution. Even better, some people will look and realize they could combine some of these ideas, or add a new wrinkle of their own, and come up with an ever more innovative and useful solution. This is an outstanding use of social media that should help many disadvantaged people who desperately seek ways to improve their quality of life!"

Maria do Céu Seabra (patient with dwarfism): "I believe that this platform is positive as it serves as a bridge of knowledge, that does not exist among people with dwarfism. There are people with the the same physical condition, that are at home depending on others either because they because they do not know of their existence. The sharing of experiences can improve and make known the existence of forms, some commercialized and others that we can create."