

Digital Health Innovations: Shaping the Future of Healthcare Delivery

The continued digitalisation of society has radically changed how we live our lives. These changes include how we interact with our peers; the way we use and move money and what our work environment looks like.

The health sector is not immune to these changes and digital solutions are being increasingly used to advance healthcare standards. 'Digital health' refers to the use of software, hardware and services in the healthcare field. This could include the use of mobile health applications, electronic health or medical records, the use of wearable devices, or the delivery of telehealth services.

The digitalisation of health is a relatively new phenomenon however and many of us still don't fully understand its potential impact. So, what does the digitisation of health really mean for both healthcare professionals and patients? What opportunities can it hold and what are the potential risks?

Via the EHECADI project students from different healthcare disciplines will be challenged to explore such questions via a Final International Dissertation Research project. In the meantime, to learn more about the use of digital tools in healthcare, we spoke to Carme Pratdepàdua, Head of [mHealth](#) at the [Fundació TICSalut Social](#) in Catalonia.

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- **Hello Carme, thanks for agreeing to speak with the EHECADI project, I'd like to start by asking, what is your position and organisation?**

I am leader of the mHealth.cat Office at Fundació TIC Salut Social, an Agency of the Catalan Ministry of Health.

The mHealth Office aims to promote the use of mobile technologies across the Catalan healthcare sector, one of the main assets is the assessment model for health-related mobile applications to guarantee the functionality and accuracy that ensures that patients and healthcare professionals have access to secure and high-quality Apps to facilitate disease management throughout the entire patient journey.

- **Day to day, what do you do in your role?**

One of the main tasks I carry out is to promote the adoption of mobile health solutions so that professionals and citizens can benefit from them and in this way contribute to improving care and healthcare processes. Another important activity I lead is the coordination of the mHealth assessment framework for mobile applications and ICT tools, which allows us to promote quality, trustworthiness and interoperability between information systems, guarantee compliance with standards (i.e. HL7, DICOM) and controlled vocabularies (i.e. SNOMED CT, CIM-10-MC).

Since the pandemic situation telework has increased a lot in our institution so the days I go to the office, I reserve it for scheduling internal meetings with my team to encourage teamwork. The rest of the days that I am working at home are for doing tasks that require more concentration and a quiet environment.

- **What does digital health mean to you?**

For me, Digital Health means the qualitative transformation of the healthcare sector to address health challenges and problems that can improve thanks to the promotion of digitalization and innovation. The mHealth sector is a clear example, the healthcare pathways can benefit from using health and social welfare activities centred on the person and supported by mobile devices, sensors for patient monitoring, and other solutions that act as digital assistants in remote mode.

These can interact with other technologies such as virtual reality or artificial intelligence and at the same time redefine the relationships between professionals and patients in terms of efficiency and effectiveness.

- **How do you work with other stakeholders to ensure that digital health has a benefit for all?**

We always include multidisciplinary groups in all digital health projects because we know this is one of the ways that we identify needs and interests. Once identified we can apply solutions that satisfy their demands to help them utilise the potential of the tools that they have at their disposal.

Another key aspect of the work is to include different stakeholders (public insurance, healthcare



associations, healthcare providers, patients, etc) in the decision-making process of policy development to encourage their engagement from the beginning of the digital projects.

- **For you, what is the opportunity of digital health that others may not be aware of?**

It is very important to assess and identify the strategies that add value to citizens and the health system. Digital health has been and will continue to be essential, especially in the field of telemedicine (the remote diagnosis and treatment of patients using telecommunications technology). It is essential for several reasons: to reduce the number of visits to medical practitioners; to have more equity; to provide more autonomy to patients to be more committed to their health; to keep tracking the health data more efficiently and have all this information integrated into the public single network so all healthcare professionals can follow up the patient through the information system.

We need to provide professionals with training, so they develop certain skills. Institutions also need to be equipped with the right tools to be able to provide this care service adapted to the digital world. It is also important to be able to inform patients properly.

Evaluation is required too. We need to properly evaluate all of these tools, so they provide real value, not only to the public but also to professionals in clinical care practice. It is important to have valid and reliable tools in terms of cost-effectiveness. And we need to review the different care processes and doctor-patient relationships to adapt or rethink them, taking the new tools into account.

- **Do we have to be concerned about the ethical implications of using digital tools in healthcare?**

Yes, ethical implications are crucial, and the introduction of Artificial Intelligence (AI) guarantees trustworthy AI in the healthcare tools used by citizens it is very necessary to let transparency and secure their rights.

- **In 10 years what do you predict the digital health landscape will look like?**

Solutions such as telemedicine and remote tools and sensing, supported by big data, will be adopted and will have helped to reduce healthcare costs as well as improve access, outcomes, and efficiency. Most of the healthcare processes and interventions will be automatic and AI, other smart technologies and robots will be totally integrated into the private and public healthcare sectors.

We will find ourselves in a totally connected and monitored society. The key challenges of this will be the environmental and ecological impacts and resource allocation. The impacts of oversized cities also need to be considered and they will bring with them new problems in social relations and well-being as well as a healthier society that must responsibly manage finite natural resources.



- **The EHECADI project will work to develop a course for healthcare students to have a better understanding of societal needs and be able to increase their employability. What do you think students should be taught about digital health now, to equip them for delivering quality healthcare in the coming years?**

I really believe that the inclusion in educational programs of awareness of these natural resources and their impact on the economy are fundamental elements for the societies of the future to adopt a more conscious, committed, and self-responsible attitude in their daily activities.

Regarding digital skills, students should be taught about data access, management and analysis, communication and collaboration, digital awareness, ethical principles, safety criteria, and civility in the responsible use of digital technologies – channels, tools, and languages - in Health.

Thank you for your time.

To find out more about the [European Health Care Final Dissertation \(EHECADI\) project, you can visit the project webpage here.](#)



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