

Creating Impact in Healthcare with Co-Creation

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For co-creation to be successful it is important to establish partnerships that have a shared goal



Healthcare professionals today are under tremendous pressure to provide care for more and more people while facing significant staff shortages and high turnover. Innovation that can address these challenges would certainly make a substantial impact in the delivery of care and patient outcomes. MedTech companies must, therefore, focus on developing solutions that solve people and patient centric challenges. Listening to diverse customers and patient voices, balancing stakeholder interests, and working collaboratively with ecosystem partners can generate better outcomes and enable better adoption of the systems and solutions they have created.

Innovation teams must immerse themselves in deeply understanding the interaction and engagement of each stakeholder with the area of innovation in question. They must continuously ask themselves what could close the gap in the unmet needs of the stakeholders and what can be done to reduce the friction in their job from start to finish. Innovating as close to customers and consumers and co-creating solutions that ease their daily challenges should be the primary objective of these teams. Let us examine how we achieve this goal through methodical co-creation approaches and some examples.

The Co-creation Approach

The co-creation process begins with the discovery of insights by asking relevant questions and keenly shadowing the stakeholders in real life scenarios at the hospitals. Insights gained from this activity are then framed into challenges or opportunities that are formed into propositions and concepts. These concepts are brainstormed in the next step, and the most relevant ideas are distilled and a shared understanding between all stakeholders is established. Ultimately, a roadmap is created, and prototype is built to test the hypotheses in context with key stakeholders and users.

For instance, physicians rely on imaging systems and solutions, such as the mobile C-Arm, for visual guidance during invasive procedures. Their time is precious and limited, and they want to spend it operating on the patient rather than

engaging in elaborate system set up during surgeries. Moreover, the space in the Operating Rooms (OR) is restricted and with assistants, nurses and system operators, the area available for equipment used in the OR is scarce. During procedures, ensuring Physicians have as much control as possible on the positioning and repositioning of the imaging system prevents unnecessary communication with the operator. Furthermore, it is vital for physicians to precisely plan the procedures for better clinical outcomes. To enable this, their interaction with new technology must be made as smooth as possible by reducing complexity to the extent possible. Finally, any enhancement to image quality that enables the physician to get more information to assist their intervention is always a goal worth chasing.

To tackle these challenges, it is crucial to involve Key Opinion Leaders from the early stages of development and till the advanced stages when the system is closer to launch. Going back to them at each stage of development and incorporating their feedback iteratively in different settings helps tune the product accurately to the needs of those that will be ultimately using them.

Incorporating feedback or addressing pain points of stakeholders iteratively takes many forms and are derived through many tests and studies involving ecosystems partners. They are all part of the co-creation process. Few among them are Usability studies and Clinical Studies. Usability studies are conducted to illuminate where the gaps are arising and if the proposed solution is closing those effectively. For example, complex workflows in the OR are examined to see how they can be simplified. The solution takes many shapes, such as, possible ways are explored to see if certain presets or profiles for specific procedures in the UI could avoid complicated or tedious parameter definitions for the procedure. Options are weighed for designing wireless controls that can solve dual problems – create more space in the OR, as well as allow physicians to control the imaging system from the bedside and minimize dependency on the operator. Color code matching of controls with specific positioning components is one way to reduce the fuzziness of different controls.

Ensuring safety and efficacy of medical devices is of paramount importance in Medtech innovation. Pre-clinical and Clinical studies are undertaken to test whether the targeted clinical and image enhancements were achieved in the newly introduced features. This is done both in-house, and at partner healthcare institutes and skills centers. For pre-clinical study, apart from using in-house, phantom models, specially designed for medical imaging research that mimic biological body parts and tissues, animal/human cadavers and live animals are also used. Testing on cadavers and live animals is conducted with necessary permissions from relevant authorities and ethics committees. As we explore new and unexpected solutions for users, three perspectives are keenly considered - user experience, technical and clinical feasibility and business viability.

Avoiding aspects that disrupt the goal

For co-creation to be successful it is important to establish partnerships that have a shared goal. Identifying entities that are willing to spare their time and effort in building new innovations that can benefit a larger community should be your ideal partners. Having the same ethical and sustainability objectives ensures that you are not compromising on your true vision in a bid to outpace the industry.

Another imperative is understanding the legal and regulatory framework at the early stages of development. Legal and regulatory compliance requires lengthy planning and varies from country to country. It must be taken into consideration at the very beginning of the development of an idea. Once the feature, product or solution is developed, backtracking may turn out to be a costly affair.

One consideration that requires special attention is the user adoption of new innovations. In the field of healthcare, there are people with different skills sets and are, sometimes, overworked. The learning curve of any innovation must not be steep and, therefore, the solution should be as intuitive as possible so that with little training they can get up to speed. Unless this is ensured, there is always a risk of abandonment of features or equipment that took significant time and resources to develop.

Continuous Innovation

Co-creation doesn't stop with the launch of an innovation. One must continue to partner with stakeholders throughout the lifecycle of the system. This builds trust and faith among the customers and consumers, and at the same time, it ensures that the system remains useful for a longer time, minimizing impact on the planet.

Conclusion

Innovation in healthcare in a constantly evolving technological world is not a siloed approach and neither is it a one-time activity. The delivery of healthcare requires an entire ecosystem to come together and any innovation to be effective in the long term in healthcare often requires participation from all stakeholders. From early engagement in collaborating on ideas, iterative process of developing the solution, to validating it further with usability and clinical studies together with our ecosystem partners should be an integral part of the innovation Journey. An innovation is truly beneficial when it positively impacts the patient, people and the planet.

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