

# The Benefits of Co-Production in the development of Assisted Living Technologies

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## Introduction

The increasing popularity of Assisted Living Technologies (ALTs) has sparked a profound transformation in the delivery of health and social care services globally.

ALTs have the potential to provide individuals with increased autonomy, improved safety, and enhanced quality of life. Despite the promise of these technologies, their adoption is often met with resistance, primarily due to a disconnect between the design of the technology and the needs of the users.

This is where the concept of Co-Production comes into play, bringing providers, carers, end users, and other stakeholders together to co-create solutions that are tailored to the needs of the people who interact with them.

## Understanding Co-Production

Co-production is an approach that involves users in the design and delivery of services or products, thereby ensuring that the solutions are created with users rather than provided to or imposed upon them. It centres on the belief that the users of any service or product hold significant insights and valuable perspectives that can contribute to the development and refinement of the service or product.

The [National Co-Production Advisory Group](#) defines co-production as “*a way of working where everybody works together on an equal basis to create a service or come to a decision which works for everybody.*” This approach encourages the involvement of people who use the services from the very start, ensuring an equal participation of all stakeholders, thus creating solutions that genuinely reflect the users' needs.

## The Importance of Co-Production

Co-production in health and social care is vital for several reasons. Ultimately, through sharing knowledge, experience, and expertise, more personalised and better quality care can be delivered to individuals.

This approach can bring about improved service quality, as different organisations work together, leveraging their strengths to ensure services align with the needs of the community.

Further, the co-production approach enables individuals to voice their concerns, promoting a sense of ownership and responsibility, and encouraging further involvement, engagement, and satisfaction with the services they receive. This shared decision-making process is fundamental in developing solutions that are both useful and usable.

Co-production is central to the ethos of innovative companies such as [Yorbl Technologies Limited](#) who work directly with providers, occupational therapists, and end-users across the UK to ensure product development is guided by the input of these groups and genuinely caters for their needs.

## Co-Production in the World of Assisted Living Technology

In the context of Assisted Living Technologies, co-production has proven to be an effective method of creating solutions that are not only technologically advanced but also user-friendly and aligned with the needs of the users. By actively involving users in the design process, the resulting solutions are more likely to be accepted and effectively utilised by them.

The co-production approach has been successfully applied in the development of various types of assisted living technologies, from telemedicine services to smart home systems, including Yorbl Technologies unique [Community Living Digital Ecosystem](#).

Another good example is the NHS [Near Me](#) service in Scotland, which involved patients in its development, ensuring the service met the specific needs of remote communities.

Similarly, the [Doctor@Home](#) program by the National Cancer Institute of Aviano, Italy, used a co-production approach, involving patients in the design of their oncological treatment plan.

## The Co-Production Process in ALTs

The co-production process in developing assisted living technologies involves several stages, each requiring active collaboration between users, clinicians, technology developers, and other stakeholders. The stages include:

1. **Identifying the desires, needs, and capacity of users:** This initial stage involves understanding the specific needs and wants of the potential users of the technology. This could be achieved through focus groups, surveys, interviews, or ethnographic research.
2. **Identifying and/or developing possible technology options:** Based on the identified needs, potential technology solutions are explored. This could involve brainstorming sessions, prototype development, and testing.
3. **Introducing technology:** Once a suitable technology solution has been developed, it is introduced to the users. This stage often involves training sessions, demonstrations, and initial user feedback collection.
4. **Using technology:** Users start to incorporate the technology into their daily lives. Regular feedback is collected to understand the user experience and identify any potential issues or areas for improvement.
5. **Improving, maintaining, and continuing to use technology:** Based on the feedback received, the technology is continuously improved and updated to ensure it remains effective and beneficial to the users.

Each of these stages requires a tailored approach to co-production, considering the unique needs and preferences of the users, their physical and cognitive abilities, and their social support networks.

## The Benefits of Co-Producing Value

Co-producing value in health and care starts with the understanding that Patients, Carers and Clinicians exist within a larger system that can either facilitate or hinder progress toward optimal care.

A collaborative approach to care that recognises Clinicians as experts on medical science, Carers as experts on care and Patients as experts on their own values and preferences can lead to healthier behaviours, improved outcomes, and more positive experiences for all involved.

As part of the “[Enablers and Barriers to effective Diabetes Self-Management](#)” multi-national study in 2019 , it was concluded that educational reinforcement using technological devices such as mobile application has been highlighted as an enabler of diabetes self-management.

It is clear that a Co-Production approach to the research and development of these technologies would ensure both the input and education of those who will use them.

## **The Role of Technology in Co-Production**

Technology plays a critical role in co-production. It provides a platform for collaboration, information sharing, and coordination among all the stakeholders involved in the co-production process.

For instance, the use of electronic information and communication technologies has revolutionised healthcare, enabling the delivery of care remotely.

The recent COVID-19 pandemic has catalysed an unprecedented need to deliver care remotely, following social-distancing requirements and the disruption in hospitals worldwide.

This shift has fostered the rapid development of telemedicine services across various medical specialities. In fact, many have forecast that virtual visits will continue even in a new normal, as telemedicine has proved to improve access to care and allow better resource efficiency and lower costs compared with traditional in-person hospital or ambulatory visits.

It is precisely because these issues and the need for these technologies were regularly highlighted to Yorbl Technologies by their Co-Production partners during the R&D process that functionality such as one to one and Group Video Conferencing, Voice Calling and integration with medical grade sensors and peripherals is already built into their solutions.

## **The Challenges of Implementing Co-Production**

Despite the numerous benefits of co-production, its implementation is not without challenges.

The first is ensuring that relevant Stakeholders within Health and Care organisations, as well as end users, are fully educated as to the many benefits of the approach. Also, it is imperative that technology developers themselves place co-production at the core of their R&D ethos as Yorbl Technologies and others have.

Another challenge is to ensure that Co-production is on-going and sustainable for all parties.

A core part of the responsibility for this lies with the developers themselves to ensure that the technology is highly customisable and adaptable to accommodate the multiple and changing needs of different users that are articulated to them by partners as time goes by. If not, interest in and benefit from co-production will be difficult to maintain.

## **Co-Production: A Pathway to Better Outcomes**

In conclusion, co-production offers a transformative approach to the development and implementation of digital Assisted Living, Health & care technologies.

By actively involving stakeholders in the design process, co-production ensures that the resulting solutions are tailored to the needs of the users, thereby increasing the likelihood of their acceptance and effective utilisation.

Co-production also fosters a sense of ownership and responsibility among users, encouraging active participation in their care and leading to improved health outcomes.

This approach aligns with the ethos of many innovative companies, such as Yorbl Technologies, which places co-production at the heart of their product development process. Through co-production, we can ensure that these technologies truly serve the needs of the users, paving the way for a future where everyone can age healthily and live independently, securely, and with dignity.