

A person centred approach for the development of emerging technologies for people with complex disabilities

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Introduction: New and innovative technologies have the potential to enable choice, dignity and person centred care for people living with complex neurological conditions. Primarily research in this field has been undertaken within the laboratory environment with non-disabled populations. Occupational therapists can play a key role in research to support the transition of novel systems towards practical solutions in real world settings.

Objectives: To demonstrate partnership by occupational therapists working in the design and development of brain computer interfaces and robotic exoskeleton with people who have complex disability.

Methods: User centered methodology was used to actively engage target end users, family caregivers, and Occupational Therapists at all stages of the design and development of innovative systems.

Results: A person centered framework was developed to support the multi stakeholder approach to moving innovative technology solutions out of the laboratory and into the homes of end users. Three stages were identified within this approach: ethical, technical specification and design features, and the user centered evaluation.

Throughout this process knowledge exchange between occupational therapists, engineers, family caregivers and individuals living with a neurological condition was fundamental to the implementation of the framework. Key lessons and challenges of this approach will be outlined.

Conclusion: This paper will illustrate a person centred approach to support Occupational therapist's role within multi stakeholder projects to develop practical innovative systems for real world use. This is essential in order to create technological solutions for clients with complex disabilities.