Case Study



Beam Provides Daily Presence and Dependable Mobility for People with Disabilities

About Dr. Jennifer Rode

Dr. Jennifer Rode is a senior lecturer in Digital Technologies in Education at the University College London (UCL). Dr. Rode's research primarily concerns human-computer interaction and ubiquitous



computing, subjects that have particular meaning for her since she relies on technology to better cope with a degenerative autoimmune disease. Influenced by Donna Haraway's ideas on the artificial boundaries between humans and technology, Dr. Rode argues that the division between able and disabled is a social construct, a theory that she articulated in a recent academic publication entitled *On Becoming a Cyborg: A Reflection on Articulation Work, Embodiment, Agency and Ableism.*

Dr. Rode Adopts Beam

Despite being passionate about her field of study and heavily invested in her university job, Dr. Rode must make allowances for her chronic illness, as unpredictable exacerbations impair her mobility and occasionally prevent her from leaving the house altogether. As a result, she is constantly on the lookout for technologies that might assist her in managing these challenges.

Dr. Rode's initial exposure to Beam telepresence technology came when a colleague provided her with remote access to a Beam that was deployed at the Ubicomp 2014 conference in Seattle. She found the experience both productive and enjoyable, and realized that if robotic telepresence could transport her halfway around the globe, it could just as easily provide effortless "commutes" across town. So, using a foundation grant, she purchased a Beam and placed it in her laboratory at UCL, allowing her to "beam in" instantly to the school from home or other remote locations.

Since adopting Beam at work, Dr. Rode has relied on it to remotely engage in "real, productive" meetings with colleagues when illness or scheduling conflicts prevent her from being there in person. Additionally, she uses Beam for spontaneous drop-ins, and fondly remembers an occasion when she accidentally crashed a senior colleague's birthday party and ended up lending her voice to the chorus of "happy birthday." Meanwhile, she continues to beam in to industry conferences and symposia that offer the telepresence device to remote participants.

"People with disabilities already struggle with visibility and presence, ...Telepresence gives you a way to be visible and present in places you wouldn't likely be able to do so before."

Beam Provides Visibility and Physical Agency

Due to her mobility impairment, Dr. Rode is attuned to a special set of benefits from Beam. Not surprisingly, she appreciates both the ability to travel comfortably at "walking speed" and the "stamina" provided by the eight-hour battery life. Increased visibility to others and greater physical agency represent less obvious, but equally important advantages. In particular, Dr. Rode values the lifelike stature that facilitates eye-to-eye interactions, as well as the stability that allows an easy nudge of a person or object in the remote environment. Beaming in from home, Dr. Rode reports, gives her a physical embodied presence in the outside world as well as a sense of participating in it.



Beam Serves as an Agent for Personal and Social Change

Reflecting her unique perspective as a disabled person with expertise in human-computer interaction and ubiquitous computing, Dr. Rode perceives Beam as providing psychosocial benefits that go far beyond the direct interpersonal and functional rewards of traditional telepresence tools. Just as the choice of a traditional mobility aid such as a cane or scooter permits her to determine how she represents herself to others, Dr. Rode reports that beaming in allows her to adopt a more vigorous persona, likening herself to a cyborg in this state. Persons interacting with her cyborg self, she posits, may view her in a radically different light, reframing her disability as an asset rather than a liability. As the overall incidence of these sorts of positive interactions grows, she believes, society may come to regard telepresence devices as a reasonable accommodation for people with disabilities.

