Interactive Design – the desire for autonomous upright mobility: A longitudinal case study

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Abstract:

When a child is born with a motor disability, making it difficult or impossible to acquire independent locomotion, a challenging task is to find assistive compensating technology. This study addresses the motor needs of a child, Hanna, with Spinal Muscular Atrophy (SMA II). She participated in the development of her assistive technology, with a focus on her independent locomotion and posture, during her infancy, childhood and early teens in a longitudinal and interactive design project. From the very beginning, she expressed a strong attraction to autonomous upright mobility, in contrast to the more common sitting posture in a wheelchair. She has used different versions of the resulting powered walking aid ever since. The upright independent locomotion it has afforded has been of major importance for her self-image, independence and physical development.

Keywords:

SMA, standing posture, design process, walking aid, case study