

V.J.C. VAN COOTEN, A. PEINE, L.B.M. NEVEN. *Rejuvenating designs in the diffusion of e-bikes*. *Gerontechnology* 2016;15(suppl):104s; doi:10.4017/gt.2016.15.s.738.00 **Purpose** Policy makers, innovation scholars and companies often, implicitly or explicitly, regard older persons as laggards and late adopters, while innovativeness is associated with younger people¹. Yet, reviewing the diffusion of e-bikes shows that older consumers, the early adopters of the e-bike, provided an important learning environment for rejuvenating designs (scripts) and their underlying user representations, opening up the market for younger consumers. **Method** To explore the diffusion at different stages and the co-evolution of user representations, scripts and adopters, a qualitative and interpretivist research design was chosen. We conducted 17 semi-structured interviews with key-employees of e-bike manufacturers. Together they represented 80-85% of the Dutch e-bike market. In addition, websites and brochures on e-bike designs were analyzed. 'User representations'² and 'scripts'² served as sensitizing concepts, guiding data collection. Laslett's³ distinctive age categories also emerged as important categories to which our interviewees related. **Results & Discussion** The first electrical bicycle was limited by the available technology and resulted in an e-bike with massive weight and limited range, having a strong fourth-age script. Not surprisingly the first users were '4th agers'; older people with limited mobility. Hence the public opinion associated the first e-bikes strongly with old age, frailty and handicaps. To attract a wider audience the manufactures had to develop younger user representations and corresponding designs. They started developing user representations for 'active '3rd agers'³, resulting in new e-bike designs which combined hidden assistive functionality with sportive and cutting edge features for recreational use. Next, to remain sales e-bike manufactures shifted towards the '2nd agers'; commuters, parents and even schoolchildren. Technological development and learning about use practice not primarily associated with physical limitations, such as long distance rides or carrying weight, resulted in a wide range of new, but also more sober, robust and cheaper e-bike designs. Theoretically, this paper speaks critically to the prolific literature on innovation diffusion and its treatment of adopter categories as generic concepts. Using age as a central dimension, our research highlights the situated and constructed nature of adopter categories, and thus challenges age-based assumptions about technology use by younger and older persons. These insights about what we term the rejuvenation of e-bikes help us rectify existing biases of older persons as an inherently problematic group of technology users.

References

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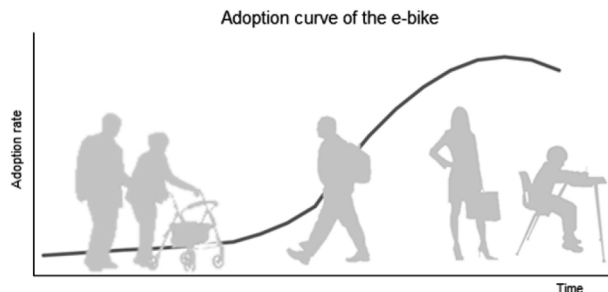


Figure 1. Rejuvenating e-bike adopters and corresponding e-bike sales