Chapter 2
The Myth of Neutral Technology

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Abstract The meaning that assistive technology (AT) holds for the user is a key determinant of whether the device will be used or abandoned. Two concepts, stigma and liminality (existing in a state of transition), are used to frame users’ perceptions of the assistive technology they use, as generated through research projects investigating aspects of assistive technology use. Implications of the meaning of AT to the design and selection process are described. Assistive technology that is seen as a tool, as just another way of achieving a desired activity is much more likely to be assimilated into the user’s daily life. Technology perceived in this manner enables people to share activities with others and augment their personal abilities. Alternately, technology can be seen as a visible sign of disability, reinforcing stigma associated with a disability and the perception of the AT user as existing somewhere between health and illness. Individuals with this view of technology may avoid or resist use of technology, resulting in avoidance of meaningful activities and both social and physical isolation. These findings support the conclusion that technology is not neutral. Inclusion of users in both the design and selection process and understanding the meaning that AT use holds are integral to the development of assistive technology that achieves the desired outcome of enabling participation in daily life.

Meaning is at least as powerful an influence as skill in determining whether a device will be incorporated by an individual as a useful tool or discarded as excess baggage [9].

Assistive technology (AT) can augment or replace function in many individuals with disabilities, enabling them to participate in daily activities in their communities. The functionality of AT can be very appealing to

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designers, researchers and prescribers, with the potential to create ever more complex technology to address physical, cognitive, or sensory impairment without the necessary consideration of the influence of technology on the user’s self-perception. Focus on device functionality may limit understanding that the technology holds meaning to the consumer and significant others, in other words, that technology is not neutral. Meaning is often a factor in whether technology will be used or put into the closet. This chapter will explore various meanings that users ascribe to AT and the implications of these meanings to the design, recommendation, selection and evaluation processes. Two related constructs will guide this exploration: stigma and liminality.

Stigma was described by Goffman [2] as possession of an external characteristic that discredits the individual. The presence of a physical impairment becomes the source of a spoiled identity. He discusses the concept of “spread” where the discrediting attribute attains a “master” status so that it defines the individual, and all other personal accomplishments or attributes are ignored. Stigma is context dependent; environments of various physical, social, or institutional elements either reinforce or limit the perception of stigma.

Liminality is an anthropological term that conveys the notion of transition and is often used to characterize the period of development of moving from childhood to adolescence. It frequently involves a change of status, social isolation, and/or physical removal of an individual. Liminality for a person with disabilities has been described by Murphy [7] as feeling distant from society, although not specifically excluded from it; as being between health and illness. Murphy’s 1990 book *The Body Silent* describes his transition from full participation in society as an academic anthropologist to living with the physical abilities that resulted from a spinal cord tumor that caused increasing paralysis. His account ably describes the experience of being and becoming a person who has a disability [10].

These two constructs, stigma and liminality, are used to frame the discussion of the meaning of assistive technology for individuals who use it, including the consumer and their families or other caregivers. They will be applied to the following ideas to give context to results of various research projects that included a component of the meaning that individuals ascribe to the technology they use and to promote awareness in AT designers and prescribers of why a device that is anticipated to be of benefit to the user in their daily life is not embraced or is even discarded.

### 2.1 Source of the Data

The following ideas come from various research projects: a qualitative exploration of how persons with disabilities chose to complete daily activities, a phenomenological study of the lived experience of using AT when assisting