



Disability and Technology

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Introduction

- There is little research being done on technology and disability in the field of Philosophy and Technology.
- Notable exceptions:
 - Ethical aspects of enabling technologies (e. g., Hansson 2007)
 - Works on specific enabling technologies like assistive or care giving robots (e. g., Decker 2011, Coeckelbergh 2010, van Wynsberghe *forthcoming*)
 - Peter-Paul Verbeek (2005)
- Missing: General account on the interplay between technology and disability in the field of Philosophy of Technology.



Introduction

According to EU documents “the estimated proportion of persons with disabilities in the total population in Europe is 10-15%” (Council of Europe - Committee of Ministers 2006). The number of people with disabilities is also “expected to grow steadily due to increasing life expectancy” (ibd.).



The Social Model of Disability

In the 1960ties „... when civil-rights protections were specified in statute of other minorities and women, the disabled had been passed over. ... To make disability a category that activates a heightened legal shield against exclusion, it was objected, would alter the purpose of legal protection for civil rights by transforming the goal from protecting opportunity for socially exploited people to providing assistance for naturally unfit people.“ (Silvers 2003)



The Social Model of Disability

- Medical model of disability: disability as a property of a person
- Social model of disability: People with functional limitations are not *per se* disabled, but are being disabled in a society which fails of taking into account ‘uncommon people’.



The Social Model of Disability

„The crucial question is whether, if all the social dimensions of disability could be resolved, there would be any other dimensions left and if so how important they would be? In particular would we have any reason to call these non-social, or ‚medical‘ dimensions, ‚disability‘ at all and would there be any reason left to alter these factors if we could?“ (Harris 2000)



The Social Model of Disability

The questions raised about the extent to which social reform will contribute to minimize disabilities will be taken into account to counter the temptation to reduce the 'disability' to a technological question.



Technology and the social model of disability

- Medical model of disability (Roulstone 1998)
 - Technology is only regard important, if it has an impact on the functional limitations of the disabled person.
 - “Technology ... has a corrective function, one that corrects an individual’s personal shortcoming.” (Roulstone 1998)
 - Hence, the focus is on enabling technologies, and the overall view on technologies is limited, but positive.
- Social model of disability: Specific technologies may be understood as enabling as well as disabling.



Therapeutic technologies

- Four types of enabling technologies (Hansson 2007):
 - Therapeutic technologies
 - Compensatory technologies,
 - Assistive technologies, and
 - Universal technologies.
- „... therapeutic technology should be the normative status of being the first priority, that is, the first hand solution.“ (Hansson 2007)
- Therapeutic as well as diagnostic technologies have been at the discussion of disability in bioethics, where „disability emerged ... [as a topic] in the abortion debate in the late 1960s and the early 1970s.“ (Vehmas 2004)



Therapeutic technologies

- Arguing in favor of therapeutic technologies as “the first hand solution” (Hansson) and focusing on diagnostic technologies in bioethics goes hand in hand with defining disability as „a physical or mental condition we have a strong [rational] preference not to be in“ (Harris 2000).
- **Tragic conception of disability**
- One way to avoid the tragic conception of disability is to be aware of the fact that most people with disabilities are not being disabled all the time.



Technologies as mediators of disabilities

“The wheelchair together with the environment is a system that can support or hinder function. ... The body and the various technical artifacts around us make up a system that enables or disables us to perform desired actions.” (Anderberg 2005)



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Technologies as mediators of disabilities

- We have to take into account that technologies which seemingly have little impact on the lives of people with disability may shape the environment.
- We have to consider the interaction of enabling technologies used by people with disabilities and other technologies which are part of the environment.
 - Lowering curbs is a way to adapt the environment for wheelchairs.
 - But curbs also make it easier for people using long sticks to find their way. (Bösl *forthcoming*)
- We have to be aware of the „chimera of infinite flexibility, especially in knowledge-based technologies.“ (Star 1991)



Missing Bodies

- Bringing back the body, which has somehow become irrelevant in the discourse building upon the social model of disability (Vehmas, Mäkelä 2009).
- However, the turn towards the body also comes with the danger of re-naturalizing the body, of mistaking the (impaired) body to be something completely 'natural' and thus to be independent from enabling or disabling technologies.
- A general account on the interplay between technology and disability in the field of Philosophy of Technology might also be helpful in providing an analysis on how Technology shapes our understanding of the (human) body and how Technology is shaping an environment where the properties of the body do matter.



Summing up (1/3)

- Missing: General account on the interplay between technology and disability in the field of Philosophy of Technology.
- The social model is still useful in addressing the interplay between technology and disability.
- We should be careful in considering ‘disability’ as something that will no longer exist once we have found the right technological means.
- Medical model of disability: the overall view on technologies is limited, but positive.
- Social model of disability: Specific technologies may be understood as enabling as well as disabling.



Summing up (2/3)

- Therapeutic as well as diagnostic technologies have been at the discussion of disability in bioethics.
- Arguing in favor of therapeutic technologies as “the first hand solution” (Hansson) and focusing on diagnostic technologies in bioethics goes hand in hand with defining disability as „a physical or mental condition we have a strong [rational] preference not to be in“ (Harris 2000).
- One way to avoid the tragic conception of disability is to be aware of the fact that most people with disabilities are not being disabled all the time.
- Following Anderberg (2005) it has been suggested to understand technologies as mediators of disability.



Summing up (3/3)

- We have to take into account that technologies which seemingly have little impact on the lives of people with disability may shape the environment.
- We have to consider the interaction of enabling technologies used by people with disabilities and other technologies which are part of the environment.
- Bringing back the body, which has somehow become irrelevant in the discourse building upon the social model of disability.
- However, the turn towards the body also comes with the danger of re-naturalizing the body, of mistaking the (impaired) body to be something completely 'natural' and thus to be independent from enabling or disabling technologies.



Thank you.

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