

# The Cyborg Mermaid (or: how technè can help the misfits fit in)

*In feminist studies, the figure of the mermaid has long been regarded as flawed, disabled and less-than-human. Her theoretical counterpart in that respect would be the cyborg, an image used to show that which the help of robotics, humankind can be larger than life. So, what would happen if we could combine those two images and apply them to create “super love” more-than-human relationships? This article explores the possibilities of technology for “mermaids”, people who normally fall outside the norm, to satisfy human desires in a new way. Two case studies will be presented, first we will look at people with ASD and after that we will look at people who have BDSM-oriented desires.*

## Cyborg

Half-robot, half-human. The image of the cyborg goes back a long time. As early as 1843, Edgar Allan Poe described a man with extensive prostheses[1]. But its name, “cyborg”, was first coined over a century later, in 1960, by Manfred Clynes and Nathan S. Kline, as an abbreviation for “cybernetic organism”[2]. As Cecilia Åsberg explains, this cyborg as described by Clynes and Kline is “the strange product of double fertilization by two fathers, sprouted from the neo-colonial sciences and the militarism of the superpowers during the Cold War between East and West” [3]. Their far-reaching visions of beings with both organic and biomechatronic body parts were soon echoed in popular culture. Popular examples of cyborgs are Darth Vader, Inspector Gadget, the Borg, RoboCop, The Terminator, the Daleks from Dr. Who and the Replicants from Blade Runner. But the cyborg is both virtual and real, as Haraway explains [4, 5]. Nowadays, the idea of the cyborg can be found all around us, in medicine (think about pace makers), in the military (DARPA), in sports (paralympic games) and in the so-called “disability studies”. Take for example the cyborgization in critical deaf studies. In her article “Do Androids Dream of Electric Speech: The Construction of Cochlear Implant Identity on American Television and the New Deaf Cyborg”, Pamela J. Kincheloe discusses the representation of the cochlear implant in media and popular culture as a case study for present and future responses to human alteration and enhancement [6]. Joseph Michael Valente describes cyborgization as an attempt to codify “normalization” through cochlear implantation in young deaf children [7]. Drawing from Paddy Ladd's work on Deaf epistemology and Donna Haraway's Cyborg ontology, Valente takes the concept of the cyborg to agitate constructions of cyborg perfection.

## Mermaid

The mermaid is only partly (often half-)human, just like the cyborg. But whereas the cyborg is regarded to as being larger than life and an improvement of Mother Nature, the mermaid is often described as flawed, disabled and less-than-human (e.g. [8]). As a symbol for the misfit and the disabled, she struggles with her feelings between longing and belonging and has to change in order to become acceptable as a human being. Andersen's mermaid, for example, cannot reach humans. First literally, because she has no legs. And after that, when this problem is “cured” by a trick or technique – *technè* in Greek – she figuratively cannot reach humans because she is literally voiceless. To overcome this disability, Disney provides her with yet another *technè*, so that she can finally be recognized (and marry the prince). As Judith Butler describes in *Giving an Account of One's Self*, recognition can only take place through a set of social norms [9]. As the mermaid as a disabled being was not recognized, she was a misfit. Pioneering disability studies scholar Rosemarie Garland-Thomas developed an argument to show how the idea of the misfit manifests itself in three ways. First the disabled body itself, then the vulnerability and dependence and lastly social devaluation [10]. This idea of being a “misfit” surrounded by “real humans”, needing to be cured by *technè* is very present in disability studies. An early account of this idea can be found in the 1908 collection of personal essays by Helen Keller, called “The world I live in” [11]. From the first line of her first essay – “I have just touched my dog” – the deaf-blind Keller makes contact, by sharing her embodied sense of touch (a phenomenological epistemology). But as she cannot speak or make eye contact, she needed writing, a *technè*, to overcome the distance between herself and the outer world.<sup>1</sup>

## A Cyborg Mermaid

The idea of theoretically challenging the limitations of the body is of course not new. During the last quarter of the 20<sup>th</sup> century, feminist scholars have problematized the biologic body in roughly four main trends (see for a more thorough discussion [13]). The first angle was the determination, the assumption that your anatomy (sex, race, “disabilities” etc.) determines your fate. The second one was through the lens of scientism, a term used by historians, philosophers, and cultural critics to highlight the possible dangers of lapses towards excessive reductionism in all fields of human knowledge (e.g. [14]). The third way of deconstructing the natural sciences claims about truth was to problematize the objectification of the body while at the same time criticizing the supposed disembodied nature of scientific reflection [15]. How can we put these ideas into practice? As described above, the process of “cyborgization” is happening all around us. Since the Stone Age, people (or half-humans like Lucy) have overcome their bodily limitations with the use

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1 In her book *When Species Meet*, Donna Haraway describes the sensation of touching other species as a form of mutual becoming in space and the world rather than an act of affirming the human ‘being’ [12]

of technology. This is especially valuable for people with so-called disabilities, who can become cyborgs to overcompensate, thus out-competing “natural humans”. As mathematical biologist Christian Yates noticed, “in every distance race further than 400m, the world record times of wheelchair athletes are faster than their able-bodied counterparts” [16]. In this light, we do not change the image of the misfit as Other – a mermaid – but we perceive this Other as being “better” – a cyborg. This leads us to our main question: “What is the impact of the cyborgization on “mermaids” - people who are considered as misfits in our contemporary society?”

### Case study #1

The first case study for the idea of the cyborg mermaid is the autistic person. My personal experiences as a high-functioning Aspergirl, in teaching the piano to autistic children and in researching autism, have ignited in me a wish to critique current views of autism as a condition that renders the autistic as being more or less than human - the first in the case of extraordinary rational and musical abilities, the second in the case of a seemingly defective intelligence and supposedly impaired social abilities. As a liminal figure, the autistic troubles the borders of the “human” such stereotypes presuppose. In her MA thesis on autism autobiographies and the theoretical cyborg figure, Teunie van der Palen states that the critical academic discussion of autistic persons rather advance a post-humanist image of the autistic [17]. As she describes it, the post-human is both what comes after the human, in terms of its incorporation of technology, and what comes after the liberal humanist subject, in terms of normative rationality, empathy, independence and self-hood. Thus the autistic is an example of both: she uses technologies to organize her world, to recognize faces and to produce language and so on. In that sense, she already is a cyborgian creature. To explore what this means, after a general description of ASD – Autism Spectrum Disorders – we will take a look at how technè has improved the lives of two successful female autistic authors: Carly Fleischmann and Temple Grandin.

### ASD

Under the DSM-5, Autism Spectrum Disorder (ASD) is characterized by persistent deficits in social communication and interaction across multiple contexts, as well as restricted, repetitive patterns of behavior, interests, or activities. But as Hannah Ebben describes in her MA-thesis, “[i]n terms of just the word and not the assemblage of symptoms that it signifies, autism is a concept that has been used to define deviant behavior as well as identity categories in the Western world for the past 70 years.” [18] But as she continues to explain, the term “autism” is even older. The word was first coined by Swiss psychiatrist Eugen Bleuler in 1911. He used this variation on the Old Greek word “autos” to describe (schizophrenic?) people who lived in their own world [19,20]. About 30 years later, two Austrian psychoanalysts independently followed in his footsteps, Leo Kanner used the word autism as a defect in relating to other people and a preoccupation [21], while Hans Asperger characterized his “little professors”, the talented children who lived in a highly individualized and intellectual world [22]. This view of a world of one's own is recognized by many autistic persons. In their definition of autism, the British *National Autism Society* writes that it “affects how a person communicates with and relates to other people, and how they experience the world around them.” Autistic persons are often referred to as Other, which has led to media representations of them as being non-human (alien, robot, computer), puzzles (many organizations about autism have puzzle pieces in their logo's) and “spatially away” (from another planet, being locked up, traveling through / breaking through autism etc.). Because they often have troubles fitting in, the main struggles for the autistic frequently lie in making appropriate contact with the outside world. A desire which is often hard to fulfill. Or as Disney's little mermaid sings “Wish I could be – part of your world”.

### Carly Fleischmann and Temple Grandin

On her website, Carly writes: “I am not able to talk out of my mouth, however I have found another way to communicate by spelling on my computer. (and yes that is me typing on the computer by myself)” [23]. With her computer, Carly crosses the boundaries of her autism, making her more ‘human,’ as Carly Fleischmann’s sister remarks (Fleischmann and Fleischmann 172). As a cyborg, she even works as a journalist, writing books and articles, and interviewing people on her own YouTube Channel: *Speechless with Carly Fleischmann*. Of course, this public voice makes her very powerful. Carly openly writes about her desires when growing up. Not only did she crave friendships, but she also took pleasure in flirting with boys [24]. For the nonverbal woman with autism, or: mermaid, those desires became reality with the help of robotics, leading her father to note: “Unable to feel or share emotions? Nothing could be further from the truth” (277). In a way, with her shift from mermaid to cyborg, robotics empowered Carly by giving her access to new forms of love. It fulfilled her desires in terms of human contact and communication. The same goes for Temple Grandin (1947), an American professor of animal science at Colorado State University with autism. While she was attending college, Temple invented a therapeutic, stress-relieving device, now known as the “hug machine”. This hug machine, also described as a hug box, a squeeze machine, or a squeeze box, is a deep-pressure device designed to calm hypersensitive persons, usually individuals with autism spectrum disorders [25]. People with ASD often experience problems in both social interactions and sensitivity to sensory stimulation, often making it uncomfortable or impractical for them to turn to other human beings for comfort. The hug machine can help them, so that by becoming more cyborg, there become less stressed as well as less dependent on other people, which gives them an advance. Just as Carly, Temple thus uses robotics to empower herself, which could be symbolically described as a shift from mermaid

to cyborg.

## Case study #2

The second case study for the idea of the cyborg mermaid is the person with BDSM-orientated desires. As a research assistant for Manuela Alizadeh (University of Tübingen), I interviewed many “kinky” people about their experiences of pain. What stroke me is that many respondents said that they used pain as a way to establish contact, just like the little mermaid used it, when she walked on knives and had her tongue cut off. Pain – whether it be inflicted by or upon the respondent – becomes technè; a means, tool or by-product in the crossing of the boundaries between the self and the Other. For this desire, the respondents call themselves kinky. But what exactly is “kinky”? Miriam-Webster gives “1: closely twisted or curled, 2: relating to, having, or appealing to unconventional tastes especially in sex; also : sexually deviant 3: outlandish, far-out.” of which we obviously need the second one. But this strikes me as being a very external and functional definition. What does it mean for a person to be kinky? That he or she has sexually loaded desires that are separate from the prevailing norm, but that one longs to see satisfied for a sense of happiness and/or meaning. Thus setting the kinky person apart as an outsider, a misfit in the usual standard. One respondent said that she felt like a “creep”, because “pain is healing for me. Addictive. A whirl in which I feel stronger.” But there is nothing creepy about this hormonal effect, in the contrary, this has been known for a long time. There are Japanese traditions in which monks slap their pupils, not to punish them, but to deliver the surge of adrenaline that comes with such a pain stimulus and can help in concentration and focus. Thus, it is the social context that “Others” kinky people.

## BDSM

Under the DSM-5, sexual sadism and sexual masochism are included as paraphilia, in the category “algolagnistic disorders” – derived from the Greek words algos (pain) and lagnaia (lust). These two conditions characterized by “abnormal” sexual desires are part of the spectrum of BDSM. BDSM is defined as sexual behavior in which pleasure is experienced by pain and this creates a psychological or sexual satisfaction [26]. The abbreviation BDSM refers to three predominant concepts: Bondage and Discipline (B&D), Dominance and Submissive (D&S), and Sadism and Masochism (S&M). Despite the fact that these concepts are related to each other, every individual will make a choice between them, or a combination of them, based on their personal preference, to integrate them into their sexual activity [27]. Thus, a person can play a dominant role, a submissive role or a switch role, depending on the occasion [28]. The most common activities within BDSM include role-playing, bondage, fetish and spanking [29]. Several studies indicate the number of people participating in BDSM. A study by Masters, Johnson and Kolodny shows that about 10% of the North American population regularly participates in BDSM [30]. Kolmes, Stock and Moser conclude that 14% of men and 11% of women participate in any form of BDSM [26]. In other research, 50% of the respondents indicated to experience sexual excitement with biting [26]. Additionally, about 65% of the respondents fantasizes about being tied up and 62% fantasizes about tying up his/her partner [31]. Despite these large numbers, BDSM is still associated with a social stigma. It is often thought that BDSM participants are psychologically unhealthy and participating in BDSM is often seen as perverse [32,33,34]. Due to this stigma, respondents often kept their desires to themselves.

## Kinky Cyborg

The BDSM scene is a versatile community consisting of a plethora of practices, actions, bodily doings, and sayings. Nevertheless, we can focus on the position of non-human bodies (“external prostheses”) in the different practices that consist of BDSM and kink practices (e.g. strap-on dildos, whips, chains, virtual reality Healslut or vacuum beds). For instance, a practice known as pegging (a female person penetrates a male figure’s anus with a strap-on dildo) involves a human-technè interaction to increase pleasure during sexual practices. While an obvious end could be enhancing sexual pleasure, pegging is organized by different orientations towards more specific ends such as domination, stimulation of male genitalia, increasing intimacy, and/or exploring sexual boundaries; these ends are often manifested in the practice itself as a range of moods, emotions, and embodied experiences [37]. The strap-on dildo plays an important role in facilitating the practice of pegging as facilitator of multiple potential doings.

Pegging is not seldom seen as a collaboration between people and technologies, but we understand this practice as a melting together of technology and human beings to create a more-than-human experience. The strap-on dildo, in all its different forms and shapes, is not necessarily a substitute of a human penis but an extra *genderless* bodily option for the one to wear the strap on, which opens up possibilities for new doings, to meet different ends. This extra option is not only there for female on male use, but also for female on female, male on female, and male on male use. Notions to gender performances are not always made by practitioners of sexual practices which include the use of strap-on dildos (irrespective of the genders involved); A more practical interpretation based upon the use of a strap-on dildo as a practice consisting of specific actions such as carrying a harness, connecting the dildo(s)/vibrator(s), using lubricants, etcetera, is primarily dedicated to enhance psychical and psychological sexual, and possibly relationship, satisfaction by creating atmospheres in which sexual preferences are practiced and experienced. We should not forget the importance of the senses as it does not all come back to functionality but also to the looks, sounds, smell, and texture of both the technological addition and the more-than-human entity (e.g. [38]).

The strap-on dildo is just one example of a melting together of technology and human beings to advance sexual practices and create more powerful and intense embodied experiences. Use of technology increases the power, capacities, and capabilities of the direct user, for instance in the flogging practice. In this practice a whip melts together with its user, both psychical and psychological, to create a more dominant and powerful human being who is able to give more pain and pleasure to the submissive partner(s). Nevertheless we prefer to speak of creating more powerful and intense embodied experiences and practices instead of powerful people as technology could also help to restrain someone and render someone more powerful such as the use of a leather harness in D/s play and bondage: The direct user of the harness is constrained whereas it enhances the power and dominance of someone else or others.

Technology is already widely used in sexual practices, sometimes because someone is not able to perform certain practices but more often to meet other ends. The melting together of technology and human beings in sexual practices creates more effective (read: in meeting certain ends) and powerful sexual practices, and thus, embodied experiences for the direct *and* indirect users.

## Conclusions

What is the impact of the cyborgization on “mermaids” - people who are considered as mitfits in our contemporary society? As the examples of Carly Fleischmann and Temple Grandin show, people with ASD could improve themselves and be less othered by becoming cyborgian creatures. This is as well the case for people with BDSM-orientated desires, as the example of pegging shows. Thus, we see robotics as an opportunity to fulfill dreams (among which lusts) in situations where it would be biologically impossible. With the image of the cyborg mermaid, the unacceptable can now be made acceptable. The manufacturability of the mermaid can thus be pulled further from the Internet and put in physical forms. This way, robotics can add a valuable contribution to our love lives. When we avoid the human-technology divide and bring forward a dialectic and inclusive approach to human, more-than-human (or semi-human), and non-human actors, we arrive at a future-now as described by Deleuze and Guattari: “There is no such thing as either man or nature now, only a process that produces the one within the other and couples the machines together. Producing-machines, desiring machines everywhere, schizophrenic machines, all of species life: the self and the non-self, outside and inside, no longer have any meaning whatsoever.” [37] As our paper shows, by incorporating robotics in human love lives, powerless mermaids can become powerful cyborgs.

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