(Where) Are Disabled Girls in Virtual Space?

Representation of disability and gender in Google Images

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Abstract

In this paper I explore virtual space as a specific location in which representation and meaning-making take place. Virtual space is a space in which modern girls spend much of their time. It is the space in which social interactions, identity formations and re/presentation occur for many girls. This space is portable, changeable, and is touted as accessible to those with impairments (although this assertion is not uncontested, Ellis & Kent, 2011); as such it is valuable to examine if and how disabled girls are represented within this space. Virtual space is vast and in order to narrow the scope of this paper, I used the search engine *Google Images* to pull from virtual space a selection of images that I interrogated using a mixed methods approach to ask: Are disabled girls present in virtual space? If so, where are they in that space and how are they represented there?

Keywords: disability, girls, technology, representation, Google Images

(Où) Y a-t-il des filles handicapées dans l'espace virtuel? Les représentations du handicap et du genre sur *Google Images*

Résumé

Dans cet article, j'explore l'espace virtuel en tant qu'un site particulier dans lequel les représentations et le processus de signification peuvent exister. L'espace virtuel est une espace où les filles modernes passent beaucoup de leur temps. C'est un des espaces dans lesquel prends place les interactions sociales, les processus de formations identitaires, et les re/présentations pour beaucoup de filles. Cet espace est portable, versatile, et, est présenté comme accessible aux personnes ayant différents handicaps -bien que cette assertion ne demeure pas sans conteste-. (Ellis & Kent, 2011); il est donc important de savoir si les filles handicapées sont représentées dans l'espace virtuel. L'espace virtuel est vaste, donc, pour restreindre le champ de ma

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recherche, j'ai utilisé le moteur de recherche *Google Images* pour sélectionner des images, que j'ai par la suite interrogées en utilisant une approche de recherche mixte pour poser les questions suivantes : Est-ce que les filles handicapées sont présentes dans l'espace virtuel? Et, si elles le sont, où sont-elles, et comment y sont-elles représentées?

Mots Clefs: handicap, filles, technologie, représentation, Google Images

(Where) Are Disabled Girls in Virtual Space?

Representation of disability and gender in *Google Images*

This research stems from a curiosity about the relationship between disability, gender and age/youth, and an interest in developing a better understanding of the experience of disabled girls¹. As the mother of one such girl I have become attuned to the way that society constructs both, gender and disability, as well as the inattention given to youth in the critical disability studies literature; I see this intersection as an area in need of consideration. Where disabled children and adolescents' experiences have been studied it has often been in terms of particular impairments² or vulnerabilities, and focused on parental accounts of what it is like to raise a disabled child and what services adolescents require as they age out of children's supports (Connors & Stalker, 2007). Additionally the majority of research done with disabled children and youth has been largely gender-neutral, paying little attention to the specific experiences of girls (Priestley, 1998; Ervelles & Mutua, 2005).

Media images of disabled girls are few, and those that are produced are most often created by non-disabled others resulting in images that position their subjects as vulnerable objects of pity and charity, or as inspirational characters overcoming the limits of their impairment (Garland Thompson, 1997). Girls represented within the context of charitable campaigns – Easter Seals 'Tammys' (more recently termed 'Ambassadors'), Jerry's Kids, and children portrayed in War Amps advertising are examples of these. These imaginings contribute to widely held societal attitudes and practices that serve to perpetuate the invisibility and

¹ I use the term 'disabled girls' rather than 'girls with disabilities' to reflect a definition of disability as something 'done to' a person by a society that takes little or no account of people who have impairments, rather than as a quality located within a person.

² Throughout this paper I use 'impairment' to refer to a particular difference or lack of function of the body or mind and 'disability' to mean the social oppression that occurs when social structures do not take people with impairments into account (Oliver, 1990)

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inequality of disabled girls. Morris (2001) states that "non-disabled people have had, and largely continue to have, "absolute power" over narrative when it comes to the representation of impairment in literature, film, television, art" (p. 6) and that "while one social group has the power to represent, through whatever media, the reality of those perceived as different, there is always a danger that the "other" will be seen as not quite human" (p. 6). The internet presents new possibilities for the representation of disabled girls as the content of virtual space is controlled by a much wider variety of contributors; certainly the corporations and charitable organizations that control other forms of media are largely present and continue to control much of the content and space - but there are also contributions by individuals, alternative organizations, and disabled girls themselves.

Media representations of disability both reflect "the historical, cultural, social and economic limits organizing our collective perception of bodies" (Titchkosky, 2005, p. 665) and contribute to the creation of these perceptions (Nelson, 2011; Hogarth, 2006; Barnes, 1992). These representations provide insight into the "cultural codes in societies because all facets of the mass media are created by humans, people with conscious and unconscious perceptions about people with disabilities" (Haller, 2010, p. 43). When some of these human creators of media are disabled people themselves and/or people with a critical view of disability as social oppression, these representations may reflect an alternate "cultural code"³. Hevey (1992) examines photographic images of disability created by disabled people and finds that they challenge the notion of disabled life as tragic or heroic. I look for evidence of theses codes and challenges in my study of *Google Images*.

³ Cultural codes communicate social values through the use of symbols, images, language and other systems of meaning.

Disabled girls are at the intersection of "devalued forms of embodiment" (Titchkosky, 2005, p. 664). As female they are subject to sexist assumptions about their identity and as the owners of anomalous bodies or minds these gendered assumptions are simultaneously disrupted and reinforced. Additionally as girls, rather than adult women, they are both further discounted and allowed more leeway in their assertion of self. Thus gender, impairment and age (as well as other social categories such as race and class) "interact with but [do] not subordinate" one another (Garland Thompson, 1997, p. 21) and are best understood together rather than through attempts to tease them apart. As such, feminist disability theory is useful in examining representations of disabled girls (Garland Thompson, 1997 and 2002; Wendell, 2006).

Feminist disability theory takes into account the embodied experiences of impairment and being female, as well as the social oppression related to disability and gender (Garland Thompson, 1997 and 2002; Wendell, 2006). It does this while also being cognizant of the dialectical relationship gender and disability have with race/ethnicity, class, sexual orientation, and age. Disabled female embodiments are seen as particularly problematic by dominant culture as they disrupt the obligation imposed on women to be constantly striving for the ideal body. This problem of disabled female embodiment is frequently dealt with through rendering these bodies invisible (as evidenced by the scarcity of such bodies in the media) or by marking them as deviant (Wendell, 2006).

This research draws on the emerging field of girlhood studies which focuses on girls' identity, agency, voice, and culture. Girlhood studies recognizes girls as simultaneously participants in, contributors to, and resisters of, culture and society, rather than as passive recipients and consumers of media portrayals of normative femininity (Mazzarella & Pecora, 2007; Mazzarella, 2008). This area of study also views girls as a group distinct from the gender

neutral category of children and rejects the notion of girls as merely adult women-in-the-making; rather it "constructs girlhood as a separate, exceptional, and/or pivotal phase in female identity formation" (Wald, 1998, p. 587). A feminist approach to human geography is also helpful in examining the way that spaces and bodies, particularly disabled female bodies, interact (Dyck, 1998). Spaces and bodies are not static entities, each are engaged in constant re-making; bodies adjust to the spaces they inhabit and demands are placed on spaces to adapt to the peculiarities of bodies (Dyck, 1998). Whether or not spaces respond to the demands made by disabled bodies is largely dependent on the power dynamics in relation to each space, a dynamic that rarely favours bodies viewed as a deviation from the norm for which spaces are designed. However disabled women and girls do "actively engagein social practices through which power [is] negotiated" (Dyck, 1998, p.118). This dialectical relationship between space, identity and power that defines "normative expectations of the gendered body" (Dyck, 1998, p. 103) in 'real' space is also at play in virtual space.

Gleeson (1999) asserts that "changes in the socio-spatial organization of societies [have always] affected the lived experience of impairment" (p. 66), with some forms of organization resulting in the disablement of people with impairments. In recent years the internet has had a significant impact in the socio-spatial organization of society and this change warrants an examination of its effect on people with impairments to determine the ways in which it has aggravated and assuaged the disablement of people with impairments. Much of the research that looks at online spaces and disabled people focuses on the internet and/or computer technology as an accessibility tool or as providing access to social groups in new ways (Skelton & Valentine, 2010; Davidson & Parr, 2010); alternatively it looks at the exclusion of some disabled people from online technologies due to inaccessible design (Ellis & Kent, 2010). Both perspectives tend

to ignore disabled children/adolescents and do not address gendered aspects of online spaces. There is very little that looks at the representational aspect of online spaces in relation to disability and even less on the representation of disabled girls in these spaces, confirming the need for a study such as this one.

Bettis & Adams (2005) examine "landscapes of girlhood" (p. 1) and include in this examination both the physical and discursive spaces inhabited by girls. They assert that one such space is the internet and that within this space girls encounter, comply with, and resist expectations of "normative femininity" (p. 10). Disabled girls struggle to gain recognition within the discursive spaces of girlhood, remaining largely invisible and excluded by notions of what it is to be a 'normal' girl (Ervelles & Mutua, 2005, p. 254). My examination of one aspect of the discursive space of the internet may reveal how discourses of girlhood, femininity, heteronormity, disability, and normalcy are reproduced in virtual space and whether there are images in virtual space that contest/resist the dominant discourses.

Google Images

Google Images is a Content Based Image Retrieval (CBIR) system, meaning that it organizes and catalogues digital images, then retrieves and ranks those images based on certain criteria and cues (Datta, Joshi, Li & Wang, 2006; Hua, 2009). Google Images access digital images by trolling the content of other websites. Images selected and ranked by Google Images are chosen from these websites based on a number of factors including relevance of the file name, tag, caption and surrounding text, number of links to the image, number of 'hits' or views that image has received (Google, n.d.; Friedman, 2007; Hua, 2009). Google Images is easily available to internet users who simply enter a word or series of words in the search bar and await a seemingly endless display of images selected and ranked by Google based on those words. The

images presented to the user are isolated from their original sources and presented with very little text – the images can be 'read' on their own (Goodfellow, 2011). *Google Images* offers a window into virtual space that is unique in its ability to (literally) take snapshots from a multitude of sources and compile them into a symbolic representation of the word/s entered. As such one can 'read' in these images "complex political, social and cultural meanings" (Goodfellow, 2011, p. 9). Thus *Google Images* offers an opportunity to uncover "cultural codes" (Haller, 2010) present in virtual space; and as the images in virtual space are created and posted by real people in real space these codes can be extended beyond the internet into actual spaces as well.

Research Design

Data sample

Virtual space is vast and in order to narrow the scope of this paper I elected to use the popular and commonly used CBIR system, *Google Images*, to pull from virtual space a selection of images that resulted from three separate key word searches. I did not refine the searches by size, colour, type of image (e.g. face, illustration, photograph, etc.) although I did set the *Safesearch* feature to 'strict' to avoid pornographic images. *Google Images* presents search results in 'pages' with 12 to 16 images per page (although the specific number per page can be altered by the user). To avoid an overwhelming amount of data which would not have been possible to analyze within the timeframe of this research project, I used the first four pages of images that resulted from each of my searches for a total of 58, 56, and 68 images respectively. Each image presented by *Google Images* displays a small amount of associated text when the cursor hovers above the image; this text may include a file name, caption, tag or text from the webpage it comes from. Images in virtual space are constantly being added and deleted and so

search results can change during the time elapsed between searches. As such, I performed a single search for each key word set, recording all associated text and saving screen shots of each page of images at the time of the search. Searches were performed on November 13, 2011.

I originally intended to perform only two searches. For the first search I used the single key word 'girls', and for the second search I used the key words 'disabled girls'. The differences between the resulting images from each search were stark (a discussion of these differences takes place below), and were perhaps not unsurprising as they seemed to comply with the dominant representations of both gender and disability. However when I scrolled down past the fourth page of results in my search of 'disabled girls' I found images that seemed to challenge the dominant discourses of disabled girls as devalued, pitiable and vulnerable. While these pages showed several images that were similar to my 'disabled girls' search they also contained a number of pictures of disabled girls engaged in sport (one wrestler, two racing, a disabled girls gymnastic team, a disabled girls 'seatball' team), learning (one being acknowledged for being the top student in her school), one joyfully listening to music, a number laughing and 'clowning around' (according to the text), and disabled girls marching in a protest, carrying placards. I wanted to try to capture these images in my study and figure out why these were buried in pages 7 and 8 and beyond in my search of 'disabled girls'. I performed a third search using the key words 'girls disability'. I chose to put 'girls' first and to change 'disabled' to 'disability' to try to reflect "people first" language, thinking that perhaps this might capture more positive images. This third search resulted in a variety of images, some that reproduced, and others that resisted, dominant discourses of disability and gender.

⁴ While my preferred terminology is 'disabled girls' for reasons explained in an earlier footnote, 'people-first' terminology 'girls with disabilities' is more widely accepted among those not familiar with a critical disability studies approach. Users of 'people first' language wish to emphasize the person rather than impairment/disability.

Methodology

I used a mixed methods approach to analyze the data, incorporating both quantitative and qualitative techniques. Following a feminist approach to mixed methods (Leckenby & Hesse-Biber, 2007) I used inductive content analysis to allow themes to emerge from each set of data, then coded and counted the specific occurrences of some of those themes. I also employed a combination of critical discourse and visual content analysis to my study of the text and images collected. Qualitative methods remained my primary focus while the 'counting' of some aspects of the data supported and added to my analysis.

For each set of textual data I recorded any words present both in images themselves and that appeared when the mouse hovered over each image. I examined the words and phrases to identify themes. I coded the text by highlighting words relating to each theme, and then counted the number of occurrences for each theme. I also counted the ethnicities represented in each set of images, comparing the number of white people to the number of people of colour.

Critical discourse analysis is a useful approach for uncovering power structures and ideologies embedded in the 'text' of images; it can reveal taken for granted discourses related to gender, ability, race and class and expose the power relationships that work to marginalize certain groups (Kendall, 2007). This method of analysis is used to look at the structure of texts and how the words and images create meaning and/or how texts work to "construct subjects and their worlds" (Schwandt, 2007, p. 73). It is further useful in uncovering the ways in which power is produced and maintained by those in positions of power but can also be used to examine the discourses of marginalized people in order to reveal sites of resistance (Thoreau, 2006; Rudge & Morse, 2001; Scior, 2003).

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Visual content analysis interrogates images in order to "understand differential representation" (Leavy, 2007, p. 239) within and across categories such as race, gender, ability, class and sexual orientation. This method is used to investigate dominant representations and to reveal social power structures as well as to "expose the resistive possibilities of popular culture" (Leavy, 2007, p. 245). Visual content analysis is especially relevant to an examination of the internet as the images produced and consumed in that landscape are ubiquitous.

Using a combination of these approaches I asked questions of the images resulting from each search. Questions included: Are disabled girls represented in this space? How are they represented? Are they included within the category of 'girls' in this space or do they occupy a separate category/different space? Which disabled girls get represented? Which are absent? Who produced these images? Who is the image for? I also looked at the poses, clothing, posture, activity, environment, physical space or location, others in the photos, and context.

Findings

Search word 'Girls'

Coding/counting of text and images

The first four pages of this search resulted in a total of 58 images. The following themes emerged from the text of the first search (listed with the frequency of appearance in text):

Hairstyles (13)

Sexy (11)

Identification of ethnicity (9)

Celebrity (8)

Product advertising (3)

Body modification i.e. tattoos/piercings (3)

Girls and guns (2)

In addition to the above themes there was a single reference to education and a single reference to activism.

Ethnicity/race was determined through both text and image using a binary of white and non-white. While this binary of race is in fact a social construction with no biological basis, it was used to highlight cultural codes related to whiteness, gender and disability. In a few cases no ethnicity was able to be determined. Of those whose ethnicity/race was visually or textually evident, 80 percent were white.

Critical discourse analysis/visual content analysis

All images were of female people (although one painting also portrayed men). Three of the images were of paintings, and the remaining images were photographs. There were no visual or textual indicators of impairment, although disability may be said to be indicated by the exclusion of 'deviant bodies' (Dyck, 1998; Gleeson, 1999). Almost all of the bodies conformed to normative ideals, with only slight deviance in terms of colour. There were only a handful of pre-adolescent girls (4 or 5), the rest were youthful women and teenagers. Twenty percent of the images were of girls/women of colour however most of these conformed to traditional notions of white beauty, i.e. light skin, small features, straight or wavy hair. All had slim, conventionally ideal body types including those images of children and women of colour.

The majority of images were highly sexualized, most gazing directly into the camera lens, often leaning in toward the camera, with breasts very prominent in many of the photos. Several of the poses were overtly sexy, with a few engaged in, or implying, sexual acts such as

kissing, embracing, or fondling with other women. Those that were not engaged in sexual activity were not engaged in an alternative activity rather they simply and passively 'posed'. There were two exceptions to this – one young woman had her fist cocked back as though about to give someone a playful punch however she looked very similar to the majority of other images regarding her body type and sexualized portrayal, the other image was of a young girl in a classroom wearing a long sleeved, loose fitting school uniform with a headscarf. The girl in the classroom had her hand raised as though to answer a question and is clearly engaged in the activity of learning. Most of the girls/women were alone in the images while a few were posed in a group.

The clothing worn by the girls/women in the images varied; two were unclothed, several wore bikinis or lingerie, many were in tight revealing clothing, one image was of three topless women with their upper bodies painted as frogs, one was of young women in towels, a few showed girls in casual clothing that was not revealing, two images were of women wearing a draped head covering with their hair visible, and finally, the school girl whose clothing I described above.

The images were set in a variety of locations/environments including bars, restaurants, on a boat, at a waterfront, in front of walls/buildings, in bedrooms and other areas of houses, in a bathroom, a classroom, a courtroom and in a car. Many seemed to have been taken on a photo set and a few did not have a discernible background. Most of the photos were close up shots of girls/women with very little background visible.

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The source and purpose of the images was not apparent in several of the images but those whose text indicated a source or purpose included celebrity 'news', stock images/photos, personal photos, sex/dating sites and advertising.

Search words 'Disabled girls'

Coding/counting of text and images

The first four pages of this search resulted in a total of 56 images. The following themes emerged from the text of this search (listed with the frequency of appearance in text):

Identification of ethnicity (10)

Abuse/Murder/Rape (8)

Charitable organization (7)

Models (6)

Impairment identification (5)

Product advertising⁵ (4)

Sterilization/Stunted growth (3)

Banned/Excluded (3)

Education (3)

Activism/Campaigning (2)

In addition to the above themes there was one reference that could be relevant to the theme of 'sexy' that was found in the previous search, and one reference to matrimonial matches. There were no references to celebrity, guns or hairstyles in this search. Of those whose ethnicity/race was visually or textually evident, 53 percent were white.

⁵ Each instance of product advertising in this search was of shirts and mugs with the saying "I'm too sexy for my wheelchair" with an empty wheelchair in the background and the silhouette of a shapely woman in repose in the foreground.

Critical discourse analysis/visual content analysis

The images in this search depicted a wide variety of people in terms of age, gender, race, ability, and body type. Images included disabled girls, people who have hurt/killed disabled girls, and people speaking about disabled girls (e.g. charitable programs, violence done toward disabled girls). People of colour had a variety of skin tones, body types and hairstyles. There were several images of men, three who were seen on their own and who did not appear to have impairments, and a few who were part of a mixed gender group. One photo was of girls who did not seem to be disabled or have impairments but were standing around/leaning against a disabled parking sign. Indicators of poverty were present in some of the images in this search, always in conjunction with racialized people. About half of the photos of disabled girls/women showed them alone, a few were photographed in a group and a number of photos include what appear to be family members or caregivers.

The images contained representations of impairment and disability such as visual indicators of physical impairment and/or physical features of an intellectual impairment, words about disability, objects portraying impairment (wheelchairs, prosthetics, walker, ramps), and mugs and t-shirts with disability references. The disabled girls represented included those with physical disabilities, disabled models, those who had been victimized, those whose bodies are the object of public debate/scrutiny and those in need of 'help'/receiving help from charitable organizations. With two exceptions, there was an absence of disabled girls engaged in activities such as school, work, sports, recreation or fun (there was one image or a girl seated at a computer and one seated beside a sewing machine). Other than the disabled models (who are posed in fairly chaste positions) there was no sexualization of the people in these images.

Most disabled girls in the images were shown sitting or lying down, although a few were standing. Several were sitting in wheelchairs. The most prevalent activity was posing for the photograph. Of the 56 images only five depicted girls/women that were not posing or passive: there was one image of women walking, one of children eating, one of a group of disabled girls in a protest march, and as mentioned above there was one image of a girl working or learning on a computer and one seated beside a sewing machine.

The clothing worn by the girls and women in the images was very casual with some wearing dirty or disheveled clothing. Only the models wore non-casual clothing; most were clothed in glamorous or high fashion dresses and one was in a bikini. The images were set in a variety of locations/environments including homes, a park, on a road, in public spaces, at the top of a ramped entrance to a building, inside a factory/workshop, in a backyard, and in a classroom. The photos of models were set against a plain backdrop.

The source and purpose of the images were unclear in a few cases except those for whom a source was indicated most were from news/journalism websites, the next two most frequent sources were charitable organizations and disability related blogs. Other sources were websites related to disabled modeling, product advertising, Flickr and other standard photo websites, Facebook, and one was a site advertising women as potential brides.

Search words 'girls disability'

Coding/counting of text and images

The first four pages of this search resulted in a total of 68 images. The following themes emerged from the text of this search (listed with the frequency of appearance in text):

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Sports (13)

Impairment identification (10)

Rights/Activism/Campaigning (7)

Education (5)

Identification of ethnicity (3)

Research/Medical (3)

Product advertising⁶ (3)

Disability benefit/support payments (2)

Models (2)

In addition to the above themes there was one reference to the previous theme of celebrity. There was also only one reference to abuse/murder. There was text that referred to pride and to seeking disabled women's views and input. There was no text making reference to charitable organizations, sterilization/stunted growth, or to the banning/excluding of disabled people. Of those whose ethnicity/race was visually or textually evident, 72 percent were white.

Critical discourse analysis/visual content analysis

The images portrayed disabled girls, many of whom were athletes; a variety of ages, from very young girls to middle aged women; four men; one person who killed a disabled girl; t-shirts; a few girls/women with no visible disability and no related disability text. Many of the images contained representations of impairment and disability such as visual indicators of physical impairment and/or physical features of an intellectual impairment, and objects indicating impairment – wheelchairs, prosthetics, a walker, and ramps as well as three t-shirts with disability references. There were only a few girls/women of colour in the images however these

 $^{^{\}rm 6}$ Each instance of product advertising in this search was of the same shirts described in the previous search

girls/women had a variety of skin tones, body types and hairstyles. There were four photos of men who did not seem to have any impairment and one photo of a boy. Disabled girls represented in the images included those with physical, sensory, cognitive and psychiatric impairments. There was only one image that was slightly sexualized (an image of the same group of models from the 'disabled girls' search), and poverty was not evident in the images. Many images included team members, coaches, friends, family members, caregivers, other students, and other disabled people, although many portrayed individuals on their own.

The girls in this search were involved in a variety of activities including wrestling, running, kicking, gardening, registering, reading, playing, cheering, speaking, learning, working, and walking. In this collection of images posing was far less prevalent and when it did occur it was often in the form of a sports team of disabled girls posing together for a team photo. The images were a variety of both headshots and full body shots and postures included standing, sitting and 'action' shots of the above-mentioned activities. Only one girl is shown lying down.

Many of the girls were in athletic wear, some were 'dressed up', a couple of the women were in casual business attire, and most others were casual clothing. The models in both images were shown in glamorous dresses.

Photographs were taken in sports fields, gymnasiums, in homes, a garden, outside a school, in parks, on a road, in public spaces, inside a church, inside a government building, and on photo sets.

The source and purpose of the images was not apparent in all images but those whose text indicated a source or purpose included government/UN websites, local news, disability blogs and

websites, institutional websites (university/hospital/government), stock photos, a dating site, several personal photos, and product websites.

Analysis

The vast majority of images found in my first search 'girls' demonstrate not only that disabled girls are excluded from this corner of virtual space but also that the criteria for belonging in this corner is conformation to dominant discourses of femininity, heteronormity and normalcy. To occupy this space one is required to present as highly sexualized and be positioned and posed so as to be available to the male gaze⁷ (Berger, 1972). Images in this space are of bodies that are uniform shape and structure – there is no divergence from the hegemonic ideal of 'normal' corporeal embodiment. Part and parcel in this ideal is whiteness; whiteness is present both in those images that portray 'white' girls but also in the images of girls of colour who conform to white standards of beauty. This space is also a space where passivity is valued and those demonstrating subjective agency are not welcome. The girls and women here are not engaged in activity of body or mind and the main textual theme is hairstyle, a topic that while benign in itself, does not reflect the reality of girls as thinking, subjective entities who have valuable contributions to make to societal discourse.

Disabled girls, while excluded from the same space as 'girls' are present in virtual space; however the way that they are represented within virtual space varies. In my search for 'disabled girls' (using this term as my search's key words) they are represented as bodies to be controlled/fixed, excluded, abused, killed, put on display and deserving of charity. The images

⁷ The male gaze is a concept proposed by Berger (1972) in his discussion of paintings of female nudes. He asserts that the male gaze is implicit in images "which present the woman as available and objectified in a way comparable to that of pornography" (Shakespeare, 1994 p 288). Her own subjectivity is supplanted by her positioning as an object on display (Berger, 1972).

resulting from this search demonstrate that passivity is considered to be symbolic of dominant ideas of impairment as well as of gender. Once again the images selected by *Google Images* portray girls who are passively posed and unengaged in meaningful activity. In this case their capacity for action is further diminished by the persistent presence of charitable organizations and caregivers ready to act in place of the girls' own initiative. Older women are also included in the image results, suggesting that impairment renders one incapable of being considered an adult and instead relegates disabled women to the category of perpetual child. There is an interesting shift in the compulsory whiteness that was apparent in the first search, in contrast here girls and women of colour are included, but in a way that suggests a relationship between colour, poverty, aberrant bodies and charity.

Despite the overwhelmingly oppressive nature of the images found in the key word search 'disabled girls' there is a notable exemption from the sexualization and positioning in deference to the male gaze evident in the previous search. Could this indicate that there are sites of relief within virtual space from the restrictive notions of femininity that seem to dictate which images are selected as symbolic of 'girls'? Or is one form of objectification simply replaced by another? Shakespeare (1994) suggests that

The objectification of disabled people in charity advertising parallels the objectification of women in pornography. In each case, the gaze focuses on the body, which is passive and available. In each case, particular aspects of the body are exaggerated: sexual parts, in pornography, or `flawed' parts in charity advertising. In each case, the viewer is manipulated into an emotional response: desire, in the case of pornography, fear and pity in the case of charity advertising" (p. 288).

The themes of athletics, rights and education that emerged from my third search using key words 'girls disability' suggests that virtual space provides a place in which alternate symbols and meaning-making of impairment and disability can occur. The images that reflect these themes may be interpreted as resistance against dominant discourses of disability and gender that relegate disabled girls to passivity and portray them as objects lacking subjectivity and agency. In this space, images of disabled girls are not filtered through the male gaze or charitable objectification. These "resistant bodies", (Gleeson, 1999, p. 50) claim a section of virtual space in which they are represented as active, valued, and engaged persons. This is not done using common tropes of disabled people as 'overcoming tragedy' or as 'supercrips' but rather these girls are depicted in roles that would be considered usual for many adolescent girls and young women.

This third search further highlights the variance in race and whiteness between the three searches. Images of girls that are sexualized *and* those that are portrayed as active subjects appear to be much more likely to be white, while images of disabled girls who are portrayed as asexual and passive are much more likely to be of racialized girls. This finding demonstrates the intersection of "devalued forms of embodiment" that disabled girls are subject to (Titchkosky, 2005, p. 664).

Discussion

Google Images reflects the cultural codes at work in society. According to Joy, Sherry, Venkatesh & Deschenes (2009) images "act as symbolic artifacts constructed through the conventions of culture" (p. 557). The images Google draws from, and the associated text used

⁸ I use the term resistant bodies in agreement with Gleeson's (1999) use of the term to bring to mind the ways that disabled bodies are sites of political contestation which challenge hegemonic ideals, stimulate social change and transform power structures (p. 50).

by *Google* to select images, are created and put into virtual space by people. These human contributors of images/text have "conscious and unconscious perceptions about people with disabilities" (Haller, 2010, p. 43) that influence their contributions. The number of views or 'hits' these images and associated texts get within their virtual source (e.g. the website they are posted on) also influence *Google's* ranking of the images selected. Thus the search results presented to a user entering key words related to disabled girls reflects the cultural codes influencing contributors and internet users.

Google Images is also involved in the production of cultural codes. Cultural codes are created through commonly held understandings and perceptions. When people conduct a Google Image search related to disabled girls they are presented with specific images that become symbols representing the words they entered. These symbols are incorporated into viewers' cognitive conceptualizations of disabled girls, and views of these symbols accumulated by people over time contributes to the building of cultural codes regarding disability and girlhood (Joy, et al., 2009; Seidman Milburn, Carney & Ramirez, 2001).

The relationship between bodies and space is dialectical and virtual space is not exempt from this dialectical relationship. Disabled girls who view the symbolic representation of their bodies in virtual space are likely to be impacted by the images as "images [can] affect an individual's concept of one's social role and related rules for behavior which may limit the aspirations of some individuals, especially those who are depicted in a restricted range of activities and contexts" (Seidman Milburn, et al., 2001, p. 279). However, Dyck (1998) reminds us that disabled women's use of spaces can change those spaces; disabled girls are users of virtual space and so have an influence on this particular space. Disabled girls contribute images and associated text *of themselves* to the internet through Facebook, blogs, personal websites and

many other portals. These images are added to the pool of images from which *Google Images* makes its selections. As disabled girls, women and their allies make increasing contributions to this image pool, the more frequently these images will show up in *Google Images* searches related to disabled girls, and perhaps eventually in those related to simply 'girls'.

Harvey (1996, in Gleeson, 1999) states, "social change is realized through the multiple forms of spatial struggle that attempt to create material, representational and symbolic places of emancipation" (p. 150). This study demonstrates that virtual space can be one of those forms. Through their occupation of, and participation in, virtual space, disabled girls "are actively engaged in resisting, challenging, and critiquing dominant ideologies...[and]claiming their own identities, which may or may not conform to gender and ability stereotypes" (Bettis & Adams, 2005, p. 275). The images of disabled girls created by disabled girls themselves (as well as those created by people who see the multifaceted, active and valuable lives these girls live) can be viewed as the "resistant bodies" that Gleeson (1999) states lie "at the heart of ... social change, especially, the adaptations, redirections and transformations that are forced upon structures over time" (p. 50). The beginnings of this resistance were evident in this study and further resistance is hopefully yet to come.

This research focused on only one online forum in which representation of disabled girls takes place. Other forums, such as YouTube, Facebook, Blogger and Tumblr, should also be examined for representations, including self-representations, of disabled girlhood. Unlike Google Images, these mediums offer the opportunity to explore viewer responses to representations of disability, and may illuminate the ways in which alternate representations are received and interpreted by an audience. Including disabled girls in future studies of girls and

new media will help to bring together the work begin done separately within the fields of media, disability and girlhood studies.

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