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Feeling good about feeling bad: virtuous virtual reality and the automation of racial empathy

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Abstract. Virtual reality (VR)'s newly virtuous identity as the 'ultimate empathy machine' arrives during an overtly xenophobic, racist, misogynist, and Islamophobic moment in the US and abroad. Its rise also overlaps with the digital industries' attempts to defend themselves against increasingly vocal critique. VR's new identity as an anti-racist and anti-sexist technology that engineers the right kind of feeling has emerged to counter and manage the image of the digital industries as unfeeling and rapacious. In this article, the author engages with VR titles created by white and European producers that represent the lives of black and Middle Eastern women and girls in Lebanon, Nairobi, and Paris. She argues that the invasion of personal and private space that documentary VR titles 'for good' create is a spurious or 'toxic empathy' that enables white viewers to feel that they have experienced authentic empathy for these others, and this digitally mediated compassion is problematically represented in multiple media texts as itself a form of political activism.

Keywords. digital industries • digital media • embodiment • empathy • gender • race • trauma • virtual reality (VR) • women of color

> One of the most powerful features of V.R. is empathy. (Mark Zuckerberg, in Tarnoff, 2017)

When Facebook acquired the virtual reality (VR) headset maker Oculus VR for approximately $2 billion in 2014, this not only signaled the integration of social networking and VR, the marrying of visually immersive media with socially addictive networked media, but also gave VR a new emotional identity as a technology of empathy.[1] In recent years, almost every major hardware manufacturer, streaming service, and social media platform has either launched or announced the launch of a device or an application involving VR; this new wave has engendered a new name 'VR 2.0' (Terdiman, 2018).

However, the real turn from the VR 1.0 of the 1990s to the VR 2.0 of the 2010s has less to do with the new hardware and its expanded range of content,

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and more to do with the new meanings that have been integrated with it. VR post-2014 – the year that Oculus VR was acquired by Facebook – comes to the user packaged as above all a 'good' technology, one that promotes compassion, connection, and intimacy. One paradigmatic genre, the refugee VR documentary, is premised on the idea that racial and gendered otherness can be bridged by 'virtuous' VR that puts you in the shoes of marginalized and threatened bodies. This idea of VR as an empathy machine that connects people across difference is part and parcel of Big Tech's attempt to rebrand VR as a curative for the digital industries' recently scrutinized contributions to exacerbating class inequality, violating users' privacy, and amplifying far-right fascist racism and sexism.

The new merger between VR and Big Tech was announced in a Facebook press release as a return to the company's original mission: 'connecting people' in an egalitarian, familial, and intimate network. Facebook and Oculus issued press statements describing how the merger would recapture the wonder and awe of truly 'transformative and disruptive technology' that would enable users to 'experience the impossible'. VR would revive and extend Facebook's mission to 'connect the world' through social networking.[2]

Both CEOs represented VR as above all a utopian technology for pure and idealized forms of social interaction: in Mark Zuckerberg's words, 'Oculus has the chance to create the most social platform ever' (cited in Tarnoff, 2017). Brendan Iribe echoed Facebook's messaging about the company creating virtuous forms of social connection: 'we believe virtual reality will be heavily defined by social experiences that connect people in magical, new ways' ('Facebook to Acquire Oculus | Facebook Newsroom, nd). Acquiring Oculus allowed Facebook to create a strategy later copied by Google and other companies investing in VR headset production to assert that these headsets were far more than just another product launch. Instead, VR development was a major investment in creating new technologies of feeling. By bringing VR 2.0 to market as a compassionate, connecting, and above all empathetic kind of machine, Facebook claimed to reinvigorate its earlier image as a network for people of all races, genders, and identities.

In 2014, VR's meaning shifted. While VR 1.0 was a promising visual technology that was not yet available to most users but seemed to offer access to fantastic environments and experiences, VR 2.0 has been presented as a technology of affective connection, compassionate technology meant to teach ethical decision-making and moral education about the world. In leading VR producer Chris Milk's hyperbolic terms: 'through this machine we become more compassionate, we become more empathetic, and we become more connected. And ultimately, we become more human' (Milk, 2015). VR's cultural meaning as an 'empathy machine' is meant to give it new gravitas as an newly intense locus for consequential experiences that address social

problems, such as experiencing blindness or solitary confinement, learning about homelessness and poverty, and, as noted above, 'living life' as a refugee.

It is precisely because VR's most popular applications are video games and porn that, in order to carry a more utopian promise of social connection, it needed to be identified with a new visual genre: VR for social good, or virtuous VR. This new type of VR makes documentary claims, to preserve and transmit the experiences of disadvantaged and suffering people through immersive stereoscopic video. Virtuous VR is a cultural alibi for a digital media culture that has taken a wrong turn, towards distraction, detachment, and misinformation. Hence its industrial strategy to represent it as inherently more ethical, empathetic, and virtuous than any other media has ever been.[3]

The early internet was part of an era of idealism, enthusiasm, and above all *license* for the digital industries, all in the name of innovation, of moving fast and breaking things. For many years, the digital industries have failed to enforce their terms of service protecting their users from abuse and harassment on their platforms. Social networking and online video game platforms have been particularly dangerous places for women, queer people, and people of color. Racism and sexism were folded into the seemingly inevitable price of technological progress, and the routine harassment of women and people of color were viewed as collateral damage, if it was viewed as damage at all (Nakamura, 2009). Instead, the digital industries' disinterest in addressing the hostile climate for non-white, non-straight men both in their companies and on their platforms was a sign that everything was right on track. For a company that devotes time and energy to addressing diversity is by definition a company that is not product-focused.

The years 2014 and 2018 were key ones in the digital industries and in VR. In 2018, leading tech-industry media outlets O'Reilly and TechCrunch published articles on 'data's day of reckoning' and 'Silicon Valley's year of reckoning', signaling a turn away from indefinite license and towards accountability, or at least a turn towards public atonement. O'Reilly, the archetypal utopian pundit and TechCrunch, the incubator space that supported and embodied the grow-at-all costs business model for digital technologies, were forced to modify their messages in the face of strong public critique. Platforms that had operated for years without any oversight found themselves under new scrutiny, increasingly called upon to withdraw support for content by racist domestic terrorists.[4] As TechCrunch declared, '2018 was the year that the long-held belief that Silicon Valley was on the right side of progress and all things good was called into question.' O'Reilly urged the tech industry to 'take responsibility for our creations': 'we can build a future we want to live in, or we can build a nightmare. The choice is up to us' (Patil and Hilary Mason, 2018).

VR companies and entrepreneurs put forward the claim that new VR technology is part of the solution rather than an extension of the problem, a creator of idealized compassion-enhancing, dream-like 'experiences' rather than the nightmare of yet more monetized and surveillant digital media platforms and content. Facebook's pivot towards VR suggested a different way that mediated embodiment could be non-toxic, good for you, a softer, kinder way to be an-other and experience the pleasures of new media at the same time. And indeed, VR is a radically different viewing experience from other kinds of digital viewing; a survey of any of the viral video compilations of users crying, falling, screaming, or otherwise reacting to VR titles, as well as our own experiences of fear, surprise, delight, and other strong emotions attests to the power of the medium.

But we must be deeply critical of VR's claims for radical newness, for they have appeared many times during the internet's history. For example, when MUDS and MOOs and other online role-playing games were popular in the 90s, these were called 'virtual reality', and vast claims were made for the power that they had to evoke strong emotion, to create new and more compassionate and inclusive ways to experience one's gender and race, and to experience otherness from the inside out (Rheingold, 1995; Turkle, 1995). These claims that VR is uniquely capable of changing the user's structure of feeling have always been meant to extend to the medium itself, not just to the specific titles that immerse viewers in worlds of 'empathy' and 'compassion'. Chris Milk asserts that the immersion that VR can purportedly produce into the environments and even bodies of others (people of color, children, prisoners, and transgender people) is an effective cure for callousness, a correction to racist thoughts and feelings.[5]

VR now occupies the enviable position vacated by the social networks and gaming platforms that licensed and amplified racial and gender hatred, and violence: its identity as 'new' gives it access to the enticing (and thus disturbing) feelings engendered by the *early* internet, where the exception was the rule, and racism and sexism were the unintended but not unwelcome price to be paid for 'disruption'. Corporate rhetoric that claims that VR is a connective and feeling technology is meant to counter the popular perception that Big Tech is rapacious, self-interested, and invasive. It was part of the industry's defensive strategy meant to also address consumer anger about 'platform capitalism', a style of monetization that harvests personal data to produce profits for a few large companies (Srnicek, 2017). Digital tools exacerbate racist and classist oppression; unhoused people, parents of disabled and sick children, and others entitled to state-sponsored resources are now subjected to algorithmic rather than human management (Eubanks, 2019). This produces new forms of unfair decision-making that fly under the radar as unbiased, or are not even considered as *decisions* because no human judgement is involved. VR has become styled as a technology for empathy for those whose lives have

been made untenable or unlivable by the very style of capitalism that digital technologies have helped to produce.

Toxic embodiment and the production of racial empathy

Documentary filmmaker Nonny de la Peña's *One Dark Night* (2015) reproduces the murder of Trayvon Martin, a 17-year-old African-American teenager from Miami Gardens, Florida, and situates the user as a witness to the crime. Titles that traffic in this trope of virtuous embodiment across racial difference all suffer from the same challenge: they reproduce racial violence in the name of reducing it. Although the shooting does not happen in the same space as the viewer, real-life audio of the Trayvon Martin shooting makes it clear where they are and what is being simulated. VR developers such as Pathos, Oculus, Within, and other producers of documentary claim to put the viewer in the shoes of non-white and threatened bodies. VR's claims to efficiently address the resurgence of overt racism in the US both parallel and reflect a cultural shift towards overt forms of racism, xenophobia, and misogyny. Marketing by Facebook, Google, and smaller VR startups, such as Pathos and Within, make the problematic claim that their VR 2.0 products are devices for creating cross-racial empathy: non-white, non-male experiences for a white male industry that needs to feel differently.

While earlier VR addressed desires to substitute a virtual environment for the 'real' world in order to better appreciate parts of it inaccessible to 'ordinary' experience' – a mode that made sense in an age that marketed technology's difference from reality – VR 2.0 positions itself as a technology of feelings. Early VR scholarship understood VR as a technology that would produce new kinds of knowledge, rather than feeling, through direct experience of otherness (Bolter and Grusin, 1999; Rheingold, 1995). Experiments in late 90s VR such as the 'Virtual Gorilla' environment developed by the Georgia Institute of Technology allowed the user to 'assume the point of view of an adolescent gorilla' (Bolter and Grusin, 1999: 246). The kind of empathy envisioned here is about learning about the non-human through visual re-embodiment: 'through empathy, the user is supposed to be able to "learn what it is like" to be a gorilla, a dinosaur, or a molecule'. At the same time, both early VR's empathic learning and VR 2.0's empathic feeling are founded on the concept of toxic re-embodiment: occupying the body of an other who might not even own their own body.

This new VR shares many of the traits of the early internet: high-cost equipment, limited usage, and target audiences as well as developers and users who are predominantly white men. While there are many women who have played vital yet ignored roles in VR's earliest incarnations, most immersive VR rigs such as the Oculus Rift and the HTC Vive are meant to interface with powerful gaming PCs or consoles, thus ensuring an audience of users that already own

and identify with gaming equipment. Video game titles are, along with porn, the most common and profitable use for the medium, and they offer common gendered fantasies of empowerment that rely upon mastery and subjugation of virtual non-male, non-white bodies and space, of toxic embodiment.

VR 2.0 represents a nostalgic callback to the idealized past of the internet and of VR, when there was no accountability to the public or to government, only accountability to shareholders – a feature, not a bug. VR for empathy represents an imagined reset button for the newly-chastened digital media industry, a return to a time of limitless potential and lack of constraint, a horizon defined by futurity rather than sustainability. It is a disturbing and enticing promise that we remember from the early internet but that we cannot have any more. As VR developer Romain Vak, founder of Pathos Labs, whose mission is to 'create empathy-based VR experiences to disrupt interpersonal oppression, discrimination, and misperceptions', explains in an interview:

> The best AND worst thing is that nobody in the field of V.R. has any clue what's going on. What this means is that there are no rules yet (yay!) but it also means that a lot of eggs are in a basket that is difficult to predict. There is a lot of speculation and theorists, but I don't really think that anyone knows where the heck the industry is going. (Froyd, 2018, capitals in original)

This 'yay' lays bare the attractions of VR for developers: it is a celebration of chaos and perennial license, of constant emergence twinned with infinite deferral, of 'no rules' and no accountability. He describes this as at once its 'best and worst thing', embodying the promise and problem of digital media since the 1990s. This paradox explains why and how both VR hardware developers and creators of VR documentary content have attempted to redefine VR as an 'empathy machine' for curing racism and misogyny in the 21st century.

It is precisely because non-white and non-male race and gender identities have always been disavowed, erased, and marginalized in digital media that this style of VR that claims to invoke racial and gender empathy bears so much weight and does so much cultural work. It is still almost impossible to talk about race and racism in a serious way in the US, especially given that there is no consensus at the highest levels of government about how to define it. President Donald Trump tweeted that the four freshman Congresswomen of color ought to be 'sent back' and later led a 'send them back' chant during a rally, yet claimed to be the least racist person in the world (see Capehart, 2019). Although Congress voted to condemn this statement as racist, just as many politicians and public figures asserted that this was not, exposing how race and racism are at the center of a moral vacuum scaffolded upon deep definitional confusion about racism and misogyny.

Virtuous VR documentaries leverage the prestige of the BBC, Al Jazeera, *The Guardian*, and *The New York Times*. These platforms have produced hundreds of titles about unfree and marginalized humans: refugees, the disabled, the incarcerated, people of color, and other bodies that can be virtually occupied by users as a temporary way to feel something 'good' as moral cover during both a move towards regulation and a backlash against the internet and racial terror in the US. Just as algorithms automate inequality, 'anti-racist' documentary VR automates empathy. Woman of color narrators in VR titles such as *Clouds Over Sidra* (dir. Gabo Arora and Barry Pousman, 2015) *My Beautiful Home* (PathosLabs, 2018) and *Dezzie's Story* (Light Sail, 2017), welcome viewers into private space and provide absolution framed as information. Virtuous VR fills a very specific niche: as the medium that not only needs to be felt to be believed, but cannot be doubted once it is felt.

For its modality is not cognitive, not hermeneutic, but rather visceral. As Vak writes, developers are engineers first, and artists second: they view the medium as a device for producing specific kinds of feelings such as compassion, sympathy, empathy, even tears (Terdiman, 2018). That black teenagers are often not believed when reporting police violence, and that a celebrity would cry while viewing VR titles about homelessness but walk by homeless people in Los Angeles every day without particularly noticing, mirrors a larger turn to data-driven representation and decision making that contributes materially to the production of an undercommons (Harney and Moten, 2013). Here is the idea that you cannot trust marginalized people when they speak their own truth or describe their own suffering, but you have to experience it for yourself, through digital representation, to know that it is true.

Understanding VR as an 'empathy machine' puts the device to work as an effective curative to circumvent cruel or indifferent thoughts about already-immiserated people and replace them with intense sensory experiences that invoke feeling of presence. This produces new forms of unfair decision-making that fly under the radar as unbiased, or are not even considered as *decisions*, because no human judgement is involved. Feeling good about feeling bad is a pleasure specific to VR 2.0. 'Seeing as' a refugee, a black man living in the Jim Crow south, or a prisoner in solitary confinement, lets the user have it both ways – immersed in virtue as well as pleasurable pain. Making racial empathy pleasurable puts the undercommons to work providing empathy content: their recorded 'experiences' become the alibi for VR's excesses and un-virtuous uses.

Despite claims to the contrary, VR about victimized people has much in common with earlier forms such as literature, photography, and film, all of which use representations of suffering to produce feelings of immersion, identification, and empathy for those bodies that are not ours (Gaines, 2017). VR's emphasis on presence and intimacy privileges the user's feeling of direct experience,

rather than sympathy, on 'deciding for yourself' rather than witnessing and validating another person's truth. In this way, it leverages techniques from earlier 'empathy media' by photojournalists such as Jacob Riis, Diane Arbus, and Walker Evans, or from even earlier scenes of suffering by novelists such as Charles Dickens and Anna Sewell. Images of filthy and wizened factory girls and boys, dying homeless children, Dustbowl refugees, and abused animals were meant to touch the hearts of the public. These earlier visual cultures depicted the lower classes, racialized others, the disabled, and other human beings who deserve but rarely receive respect, dignity, and compassion as worthy of these things.

VR for social good is similar to some of these earlier efforts by documentarians and novelists; like them, some titles have completely misfired by exploiting their subjects and reducing their humanity through simplistic and moralistic framing. Despite hopes and claims that VR has a unique ability to reduce racial bias by putting us in the shoes of another, many titles that claim to give the user access to undercommons experiences can come across as callous and insensitive (Harney and Moten, 2013). For example, Manos Agianniotakis's 'The Circle' 'puts you in the body of a wheelchair user suffering from post-traumatic stress disorder (PTSD)' (see Figure 1). The links to the game are dead and it is nowhere to be found in the Oculus catalog;[6] however, the *idea* for such a game that would reproduce a specific stigmatized identity – that of a transgender person with disabilities – resulted in journalists describing it as a stellar example of empathetic VR. Souppouris's article entitled 'VR helped me grasp the life of a transgender wheelchair user', describes 'The Circle' as a tool for able-bodied users rather than for those it claims to represent. VR can't 'put you in' another's body, but it can produce spurious feelings of empathy as knowledge. This kind of embodiment is false, and it is toxic.

This is identity tourism for the 21st century, but with a difference. This time, the kinds of bodies that are on offer are not just exotic, racialized and gendered avatars that users can take on recreationally and temporarily (Nakamura, 2002). Rather, VR 2.0 titles about refugees and other objects of pathos that situate the viewer outside the point of view of a foreign body invite the user to confuse immersive viewing with access to the actual experience of an-other, to perform co-presence within virtual spaces that can be navigated at will, in contrast to the lack of mobility experienced by the real-life people whose lives are the material for developers. Modeling the experience of stigmatized identity as something others can temporarily opt into is not only a profound insult to those who live with challenges that cannot be simulated, but also a clear indication of the limits of VR immersion and the artificial empathy it hopes to manufacture.

Whose labor produces the emotional media that users need to feel in order to feel that they know? Nick Park's *We Wait* depicts the drowning of a refugee family in the crossing between Greece and Italy from a first-person

Figure 1. 'VR helped me grasp the life of a transgender wheelchair user'. Available at: https://www.engadget.com/2016/10/17/the-circle-vr-manos-agianniotakis-nfts-games/ (accessed 5 February 2019).

perspective; it is produced using animated CGI cartoon-like graphics but the sounds of waves from the headset speakers and the feeling of proximity to other bodies as they fall out of the boat, creates a strong sensation of presence despite the lack of photographic realness. Thus, although visual styles and points of view differ, the user's body is meant to experience the wonder and pleasure of VR's immersive capacities twinned with the pain of witnessing the trauma of others. Titles such as 6x9 (Panetta, 2016) depicts a first person point of view of an occupant in a prison cell. These and other virtuous VR succeed because they create a sensation in the body that mimics the implied *presence* of another, not *knowledge* about another. The sensation of 'body ownership', of knowing the other through digitized empathy (Rubin, 2018), is being beta-tested on the virtual bodies and experiences of the most powerless and racialized people in our society – refugees, prisoners, women and children. Developers, CEOs, and producers represent this style of VR as a virtuous form of embodiment, as a way of digitally producing feelings of empathy, sadness, and fear that replace social and institutional responsibility and reform.

This kind of experience of race and difference in VR mistakes point of view for embodied experience; like writing from the early days of digital avatars, it leverages its arguments about identity as resulting from embodiment 'as' another. VR video documentaries that claim to give users access to African slums, the lives of black women within racist societies, and Syrian refugee camps narrated by women and girls of color employ their voice, images, and spaces to create authenticity, achieving a different kind of identity tourism, with the emphasis on the tourism rather than the identity (see *Welcome to my Beautiful Home*: the violence of enforced hospitality and women of color's personal domestic space in VR). As black feminist theorists have known for some time, the desire to experience empathy for the sufferings of black people while leaving structural racism in place has long underwritten pleasurable forms of cultural appropriation and projection (Baker, 2017; Gaines, 2017).

VR's claims to fool the body and the mind into virtuous otherness and identification optimizes this way of seeing for racially callous times. It is precisely because Black teenagers are shot, because transgender people are attacked and left with physical disabilities, and because homeless people suffer violence, fear, and pain that VR creators want to depict their experiences. Representations of pain are an especially powerful 'conduit for identification', as Saidiya Hartman observes in her classic *Scenes of Subjection* (1997). VR titles that make us better and more empathetic people put us next to 'the spectacle of the body in pain' and exploit the powers of this conduit. White readers can enjoy the paradoxical pleasures of empathy by reading slave narratives as sites of identification. Because the pain can only be felt as the white viewer's own pain, invoked by and projected upon the spectacle of black suffering, the suffering of [the enslaved person?] always 'escapes and eludes' us. VR's users – majority white, majority male inhabitants of the overdeveloped – serve as the 'proxy' that replaces the suffering black body and erases black sentience, making them even less real than before:

> In order for suffering to induce a reaction and stir feelings it must be brought close . . . so, then, how does suffering elude or escape us in the very effort to bring it near? . . . If the black body is the vehicle of the other's power, pleasure, and profit, then it is no less true that it is the white or near-white body that makes the captive's suffering visible and discernible. (p. 20)

Chris Milk's *Clouds Over Sidra* holds pride of place as VR-as empathy-machine's ur-text, the foundational 'experience' that gave rise to the 'co-presence for good' movement. Along with PathosVR's *My Beautiful Home* (2018) and Lightsail VR's series *Racial Identity* for Google Immerse (23 February 2017), these 'documentaries' were created to tell you what VR is for.[7] Their content and their developers' claims assert that they are not narrative, but rather *presence*, not visual representation, but rather *experience*. Photographic VR

documentary projects like these bring us close to the action. They thrust us into the private spaces of refugee camps, favelas, children's bedrooms, taking advantage of the impossibility of public space for displaced and disenfranchised people, especially children. These titles all depict women of color's personal virtual space as sites of navigable racial suffering that display their laundry, pets, and extended families as well as their tears. VR's navigational interface requires the user to constantly pivot in a circle to find the person who is speaking or the point of view described in the audio narration, peeking and snooping within spaces where their physical bodies might not have been welcome.

In VR all space is public; private space does not exist for people whose lives in the favela do not afford them privacy. This produces the immersive 'volitional mobility' (McPherson, 2002) that characterizes new media, and that makes the viewer complicit in acts of domestic surveillance. *My Beautiful Home*, *Dezzie's Story*, and *Clouds Over Sidra* embody the triumph of the technological over the personal because they make these spaces that are populated by people who have no control over their space public and available to viewers.

When we navigate through these spaces, guided by narrators such as Sidra, the Syrian teenager who shows us her family's tent and her school, or Dezzie, the black female Google programmer whose Parisian apartment becomes a private space for the user to explore, we participate in the making visible and discernible the 'truth' about racial suffering. The viewer is put in the position of the white witness whose perspective proxies the experience of another's suffering as a resource for disavowal masked as intense emotional engagement.[8]

The labor of women and children of color as VR narrators exemplifies the way that the digital industries have always leveraged the 'invisible labor' of women of color and made it spectacularly visible: in VR 2.0, the empathy of racially marginalized women is figured as an emotional resource for white viewers. Their work as VR's documentary subjects providing digital presence and hospitality within war-torn, immiserated, and inhospitable scenes such as a Lebanese refugee camp, a favela, and the cucumber farm where Sidra works enables a fantasy of virtuous empathy on the part of the viewer. VR needs virtuous proxies or points of identification. Hence, the value of Global South women of color, non-white refugee women, and trans women in documentary VR.

In *My Beautiful Home* (see Figure 2), a VR documentary set in Kibera, a neighborhood in Kenya that is 'Africa's largest slum', an African woman of color serves as the narrative point of view and the credits identify her as a co-author. Her name is Lucy Ochieng. Her work shows how women of color can participate as VR creators: it invites them to the table to tell their own

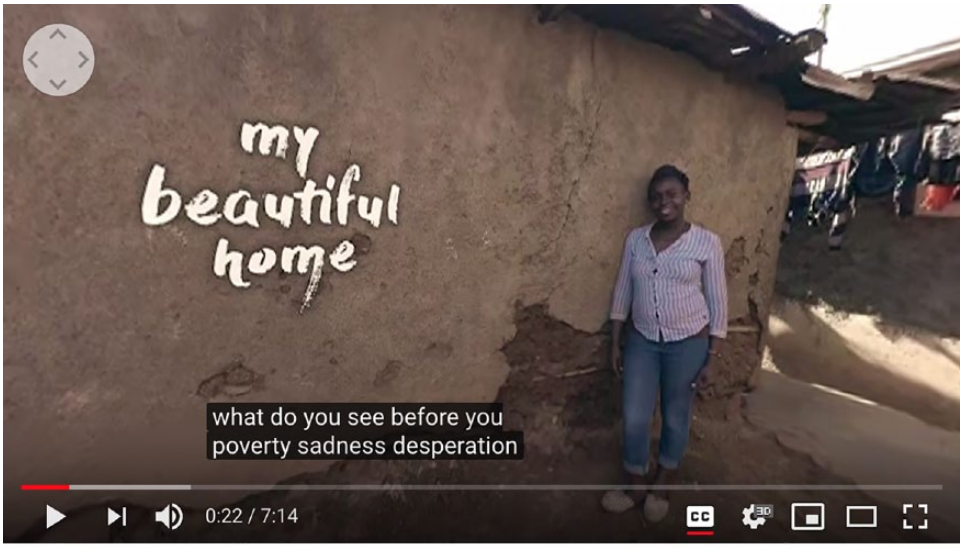

Figure 2. Screen grab from *My Beautiful Home* (Pathos Lab VR).

stories (Froyd, 2018). Despite this gesture of inclusion and consultation *My Beautiful Home* cannot help but invoke the touristic gaze (Pedwell, 2012). It critiques slum tours while providing the viewer with new opportunities for staring, probing, and enjoying sites of suffering.

Including women of color when making VR is a tempting step in the right direction, but if we want to decolonize this medium, we must know that relying upon the labor of people of color to create VR content is part and parcel of colonialism, a classic case of demanding more labor precisely from those who are already overworked (Cowan, 1983). Rather than appearing as empathetic workers and sites of identification for VR viewers, people of color deserve to control the conditions of production for VR and this requires a significant capital investment in their communities. Indigenous Canadian artists Skawenatti and Lisa Jackson, as well as the transnational woman of color design collective Hyphen Labs, produce VR work that represents non-Western perspectives without claiming to put the viewer into their bodies, thus heading off the colonization of virtual space.

The potential for intersubjective and interpersonal violence is the mirror image of VR's push for increased empathy and presence. The social media industries may never recover from their bias against non-white male users, and their default mode is still to capture all user data without permission or accountability.[9] Social media and real-time gaming VR environments are still largely unregulated spaces of exception sanctioned in the name of innovation.[10] Future VR development needs to protect the privacy of vulnerable people,

especially refugees and children, who both appear as subjects in VR titles and as users of multiplayer games and other interactive spaces.

The automation of empathy: virtual reality's third industrial revolution

Norbert Wiener's essay 'The First and Second Industrial Revolution' published in 1950, argues that computing, or 'automation', has a Janus face: while it replaces the tedious labor of calculation, it may also result in an essentially human form of labor – judgement – getting wrongly outsourced to machines. Wiener's work is now read as an early text on the dangers of computing and the end of work. Wiener viewed automation as an essentially racialized activity; the steam engine was a 'great humanitarian leap forward' because it automated 'one of the most brutal forms of human or animal labor', work formerly performed by 'the labor of human slaves' (p. 140). Second revolution companies like Amazon, Google, Uber, and so on, have automated 'service work' in ways that are equally racialized: the majority of their manual labor is performed by outsourced, non-white workers or poorly paid domestic workers, while their more highly paid programming jobs are occupied predominantly by white men.

So what is left after physical labor has been replaced by steam engines, and cognitive and service labor has been replaced by AI? What kind of labor remains? What is left that humans need, that machines cannot yet do?

Internet toxicity is often figured as a problem best solved by individual transformation or revelation – empathy, or ethics – rather than regulation or policy. If only these designers, these companies, and this industry were more compassionate, they could be trusted to regulate themselves! VR's vast claims to produce this compassion, to function as 'empathy machines', frame racism and toxicity as a problem with a head-mounted solution, rather than as a set of structural relations that require structural solutions.

VR is a harbinger of the Third Industrial Age because it seems to solve the problem of the Second Industrial Age – the emiseration of humans as machines take our jobs – by making available the last kind of work that machines cannot do: creating feelings, specifically 'good' feelings. Empathy and compassion are perceived as valuable and 'fundamental assets' because they take the place of 'the promise of progress or rights and resources' (Berlant, 2014: 3). The suffering of refugees, people of color, women, the disabled, and other non-white men proxied in VR seeks to automate 'humane recognition'. Contrary to this, Lauren Berlant understands compassion as 'not so effective as a good in itself' for, like VR, it is fundamentally private and experiential, not political: it relies upon 'individual intentions and practices' to remedy inequality rather than systemic material change.

If, as Berlant writes, compassion without material redress is a low-value kind of feeling, VR's third industrial revolution provides value by multiplying and increasing its force through automation. It claims to do something by making the user feel something. VR tries to tell our bodies when it is time to cry. Thus, it produces 'the right kind' of compassion by automating the labor of feeling pain and sadness on behalf of another. It takes empathy into the realm of non-virtual human witnessing and connection.

Many VR documentaries are developed, marketed, and consumed on a foundation of tears. It is not for nothing that pathos is VR's proof of concept. Pathos Lab's founder Romain Vak describes how the inspiration for his company came from his own tears while watching young Syrian refugees in *Clouds Over Sidra*. Crying is the medium's proof of concept, evidence that it is working as intended.[11] His experience of VR as a technology to produce 'good' feelings motivated him to claim a much wider mission than the production of media.

Vak's conversion narrative about crying while wearing the headset is leveraged to support VR's two types of exceptionalism. VR is simultaneously the best, strongest, and most empathetic medium and not a media product at all. Vak disavows the term 'filmmaker' in favor of 'entrepreneur'. Specifically, the most legitimate and admired kind of entrepreneur in tech: an engineer. His origin story explains, 'I started with a hypothesis, which was that by using VR you can hack your body into becoming more empathetic' (Froyd, 2018). VR's true value is as an effective body hack, a technology to alter the way that the body processes both media and feelings using VR. Like meal replacements packs, or other tech industry technologies created to enhance focus by reducing distraction, VR automates the labor of feeling. This time, what is being cured is not the body's need for food, but rather society's need to feel better about itself by feeling something about racism.

Decolonizing virtual reality, or how to stop the automation of racial empathy

What is left if we take empathy out of the picture as VR's claim to visual and ethical exceptionality? As Donna Haraway (1991) argues, technoscience may not permit us to have the kind of *agency* that Norbert Wiener (1950) argued that we ought to wrest away from machines – the Third Industrial Revolution is going to try to automate our feelings whether we like it or not – but it does permit us to take *responsibility* for our own role in it.

Responsibility in the age of VR asks users to forgo automated empathy for racialized others. Philosophers such as ethicist Paul Bloom are starting to come out 'against empathy': in his book of the same name he argues, citing Peter Singer, that individuals motivated by 'cold logic and reasoning' who

provide material help to others are more compassionate than those who simply wish to 'experience the world [they] think someone else does' (Bloom, 2016). Bloom is certainly not saying that empathy is not an entirely useless feeling, but he is entirely correct that its overlap with the idea of compassion means that it is dangerously overvalued as a way of addressing other people's suffering.

Virtuous VR does not preclude more useful ways of addressing the real world that it frames as a site of suffering. Psychology experiments in VR labs have demonstrated that users can indeed take on new attitudes from watching titles about deforestation and racial bias; users have scored better on implicit bias tests and used less paper towels after watching titles about beautiful redwood trees and experiencing social exclusion within a raced body.[12] However, trees and people are not the same; fixes for imperialism, hypercapitalism, racism, and sexism are more difficult to envision in everyday life. Hence, the intense need and desire for these VR titles that tell us how to feel about the suffering of racial others' ways of viewing. Feeling takes the place of doing precisely because there seems to be no viable liminal space between the two.

The digital industries have created radically precarious material conditions of life for the global majority. And these are racialized crises. Users in the overdeveloped world – and what is VR if not a totem of that specific space? – must do things that they might not otherwise do, instead of feeling something they may not otherwise feel. The desire to sense empathy in the body, to outsource this labor of compassion, is addictive by design.[13] And while the pleasurable tears of empathy that VR produces may feel bad in a good way, giving in to these virtuous virtual feelings reproduces the circuits of trauma that engendered and perpetuate its use by the military industrial complex. For VR was developed by the military to both prepare humans to wage war, and to rehabilitate them from its traumas (Suchman, 2016).

The pleasures of toxic embodiment offered by witnessing racial suffering in VR extend these precarious conditions of life. Rather than trying to automate compassion for those who suffer as a result of racialized violence, indifference, and hyper-automation, we need forms of critique that show us how emotions like empathy and compassion have alibi-ed untenable material conditions of labor for racialized and gendered people long before VR claimed them.

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Notes

1. On Facebook's acquisition of Oculus see the Editors' Introduction to this themed issue (Belisle and Roquet, 2020).

2. Facebook's press release is quoted in Belisle and Roquet (2020).
3. Mark Zuckerberg claimed that 'one of the most powerful features of VR is empathy' as part of a public apology he published on Facebook after broadcasting images of himself in VR, high-fiving a co-worker while virtually present in a disastrously flooded Puerto Rico. Images of his avatar touting the benefits of VR overlaid over documentary video showing debris, ruined houses, and floodwaters flowing through a neighborhood served as an anti-demo: rather than showcasing the desirable features of the new platform, it demonstrates how virtual presence could facilitate a stunning lack of empathy. It was both an extension of disaster tourism and a moment that embodied social media industries' problems. This virtual image encapsulated Big Tech's lack of empathy for suffering, specifically the suffering of people of color.
4. After the radical anti-censorship image-sharing board 8chan distributed racist manifestos from high-profile domestic terrorists in Toronto and El Paso, its CDN (content delivery network), Cloudflare, announced that it would drop the site, see https://blog.cloudflare.com/terminating-service-for-8chan/
5. See discussion of Milk in Belisle and Roquet (2020).
6. It is hard to tell whether a given VR title exists or can be played by users outside of specific exhibition spaces such as film festivals or museums and, like earlier computing culture, access to it is an index of racial and gender privilege. VR vaporware finds its way into press releases long before it is actually available for viewing either in person or as a downloadable file. Other high-profile VR titles such as Jordan Wolfson's controversial 2017 *Real Violence* which depicts an a man brutally beating a man to death as the viewer watches are screened only at site-specific venues such as the Whitney Museum.
7. VR's media taxonomies are still under construction and vary considerably. IMDB classifies *My Beautiful Home* as a 'documentary' and *Clouds Over Sidra* as 'virtual reality' even though both are 360-degree videos playable on all of the usual platforms: the Google cardboard or similar mobile phone viewer, YouTube, the Oculus Go, etc. Although VR takes great pains to differentiate itself from film, just as digital media at one time insisted on its differences from analog media, some of the awards that VR films have received have come from motion picture organizations like the Academy Awards, which started a prize for VR, and IMDB sometimes catalogs them as 'VR films'.
8. Women and people of color who view these titles have a very different relation and response to these spectacles of immersive suffering. Seeing black and refugee bodies shot, drowned, and abused in VR is often experienced as trauma rather than as empathetic identification. As Priscilla Ward (2016) writes:

   After I experienced 'One Dark Night' myself, I stayed to watch other users. Most of the Black people I spoke to after had the same reaction: 'Why would someone create this!?' White users, on the other hand, seemed to be able to get up, move on and go about enjoying the rest of the festival. While this project may have been created to raise awareness around police brutality, it does so by putting the mental and emotional health of African-American users at risk.

   Courtney Cogburn, producer of the groundbreaking *1000 Cut Journey* which embodies the user as a black male, discovered that black users engage very differently with it than white users do: for them, it is more likely to invoke memories of real-life experiences of racism than to produce empathy for another person's imagined experience.
9. Jordan Belamire's experience being groped while playing a multiplayer game, Quivr, is typical of the harassment that female gamers have had to endure for many years.
10. Social VR platform Alt Space was very rare in that it prioritized user safety and had a 24/7 live moderator on duty. It has since been acquired by Google.
11. Nonny De La Peña has posted short videos of celebrities emerging from VR headsets crying; her clip of actress Gina Rodriguez wiping her eyes after watching *Homeless in L.A.* is a product demo unique to VR.

12. Sun Joo Ahn's experiment immersed subjects in a beautiful virtual redwood forest and asked some of them to cut the trees down. She observed that those who engaged in the VR title used less paper afterwards than those who only read an informative essay about the effects of deforestation (see Bailenson, 2018; also Banakou et al., 2016).
13. Natasha Schüll's wonderful work on gambling machines inspired this section (Schüll, 2014).

References

Bailenson J (2018) *Experience on Demand: What Virtual Reality Is, How It Works, and What It Can Do*. New York: WW Norton & Company.

Baker C (2017) *Humane Insight: Looking at Images of African American Suffering and Death*. Champaign Urbana: University of Illinois Press.

Banakou D, Hanumanthu PD and Slater M (2016) Virtual embodiment of white people in a black virtual body leads to a sustained reduction in their implicit racial bias. *Frontiers in Human Neuroscience* 10: 601.

Belisle B and Roquet P (2020) Virtual reality: Immersion and empathy – Editors' Introduction. *Journal of Visual Culture* 19(1).

Berlant LG (2014) *Compassion: The Culture and Politics of an Emotion*. New York: Routledge.

Bloom P (2016) *Against Empathy: The Case for Rational Compassion*. New York, NY: Ecco Books.

Bolter JD and Grusin RA (1999) *Remediation: Understanding New Media*. Cambridge, MA: MIT Press.

Capehart J (2019) Trump says he's 'the least racist person in the world'. That's rich. *The Washington Post*, 30 July. Available at: https://www.washingtonpost.com/opinions/2019/07/30/trump-says-hes-least-racist-person-world-thats-rich/ (accessed 20 February 2020).

Cowan RS (1983) *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave*. New York: Basic Books.

Eubanks V (2018) *Automating Inequality: How High-Tech Tools Profile Police, and Punish the Poor*. New York: St Martin's Press.

Facebook to Acquire Oculus | Facebook Newsroom (www document) (nd). Available at: https://newsroom.fb.com/news/2014/03/facebook-to-acquire-oculus/ (accessed 8 December 2019).

Froyd S (2018) *Romain Vak Is Erasing Hate With Virtual Reality | Westword*. Available at: https://www.westword.com/arts/romain-vak-is-erasing-hate-with-virtual-reality-10015134 (accessed 7 May 2019).

Gaines A (2017) *Black for a Day: White Fantasies of Race and Empathy*. Chapel Hill: University of North Carolina Press.

Haraway D (1991) *Simians, Cyborgs, and Women: The Reinvention of Nature*. London: Routledge.

Harney S and Moten F (2013) *The Undercommons: Fugitive Planning & Black Study*. New York: Autonomedia.

Hartman S (1997) *Scenes of Subjection*. Oxford: Oxford University Press.

McPherson T (2002) Reload: Liveness, mobility, and the web. In: Mirzoeff N (ed.) *The Visual Culture Reader*. London: Routledge, 458–470.

Milk C (2015) How Virtual Reality can create the ultimate empathy machine. Available at: https://www.ted.com/talks/chris_milk_how_virtual_reality_can_create_the_ultimate_empathy_machine/transcript?language=en (accessed 18 March 2020).

Nakamura L (2002) *Cybertypes: Race, Identity, and Ethnicity on the Internet*. New York: Routledge.

Nakamura L (2009) 'Don't hate the player, hate the game': The racialization of labor in World of Warcraft. *Critical Studies in Media Communication* 26: 128–144.

Panetta F (2016) 6x9: A virtual experience of solitary confinement. *The Guardian*.

Patil ML and Hilary Mason DJ (2018) Data's day of reckoning. O'Reilly Media. Available at: https://www.oreilly.com/ideas/datas-day-of-reckoning (accessed 9 May 2019).

Pedwell C (2012) Affective (self-) transformations: Empathy, neoliberalism and international development. *Feminist Theory* 13(2). Available at: http://journals.sagepub.com/doi/abs/10.1177/1464700112442644 (accessed 18 March 2020).

Rheingold H (1995) *Virtual Reality*. New York: Simon & Schuster.
Rubin P (2018) *Future Presence: How Virtual Reality Is Changing Human Connection, Intimacy, and the Limits of Ordinary Life*. York, NY: HarperOne.
Schüll ND (2014) *Addiction by Design: Machine Gambling in Las Vegas*, 2nd edn. Princeton, NJ: Princeton University Press.
Srnicek N (2016) *Platform Capitalism*. New York: Polity Press.
Suchman L (2016) Configuring the Other: Sensing war through immersive simulation. *Catalyst: Feminism, Theory, Technoscience* 2.
Tarnoff B (2017) Empathy: The latest gadget Silicon Valley wants to sell you. *The Guardian*, 25 October.
Terdiman T (2018) Why 2018 will be the year of VR 2.0. Available at: https://www.fastcompany.com/40503648/why-2018-will-be-the-year-of-vr-2-0 (accessed 8 May 2019).
Turkle S (1995) *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster.
Ward P (2016) Black pain isn't a video game: The possibilities and pitfalls of virtual reality in the Black Lives Matter era. Available at: https://www.salon.com/2016/08/14/black-pain-isnt-a-video-game-the-possibilities-and-pitfalls-of-virtual-reality-in-the-black-lives-matter-era/ (accessed 19 June 2019).
Wiener N (1950) *The Human Use of Human Beings: Cybernetics and Society*. Boston, MA: Houghton Mifflin.

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