

Cycling Media and Collectives. Cycling Vlogs and Mobile Infrastructures

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Abstract

Not only have cycling communities produced a visual culture consisting of photography, videos, fashion, art and bikes themselves. Conversely, images and videos produce and shape cycling culture and therefore communities. Aesthetics in the digital culture thus contribute to the complex of cycling mobility.

In this paper, I concentrate on cycling vlogs as part of mobile infrastructure. Cycling vlogs cultivate a “social aesthetic” (Born *et al.*, 2017) that adapts symbols from cycling culture, hereby bringing into circulation, and thus shaping, cycling practices. Nevertheless, the interconnection of different platform media like Youtube and performance tracking apps makes digital cycling cultures a place of data production and harvesting of different sorts.

Keywords: Cycling culture, mobile media, sensory media, individuation, Simondon

1. Introduction

Mobility causes over 20% of CO₂ emissions in European societies (Umweltbundesamt, 2021). Finding the way out of the “lock-in” in automobility (Urry, 2004) requires perspectives not only from planners and engineers but also the humanities and social sciences. We need to understand how deeply society is invested into mental and material images of car centrism (Sheller, 2004). This includes also perspectives of mobility cultures as Aldred and Jungnickel (2014) call for as well as Cresswell’s (2010, 18) suggestion that mobility must always also be represented in “constellations of mobility”. In this paper, I build on the idea of cycling cultures by deploying a perspective from media culture to expand the focus beyond the already-existing representation in this field. I discuss vlogging from an aesthetic perspective, by concentrating on examples from sports vlogs as practices that are prone to commercialization but also might support emerging cycling cultures beyond the field of sports. Cycling practices are produced and shaped not only by riding a bike alone but by many practices surrounding cycling which contribute to images and imaginations of cycling. Furness (2014) for example underlines the importance of subcultures of cycling expressed in fashion, (punk) music and DIY cultures. In the following, I will concentrate on vlogs that connect cycling cultures with sport.

Although many vlogs are embedded in an influencer and selfie culture, they simultaneously contribute to cycling media culture. Thereby, vlogs can become a medium

to re-invent and negotiate the meaning of cycling in circulating media practices. One very important aspect of this ongoing negotiation is that cycling is not related to a single dominant image or narration. This is an important potential for new representations of cycling to gain a wider reach in society: Cycling is a manifold technique that relates in different ways to very different communities and practices. Cycling is not one but many practices and can be mobilized also in relation to different social movements, like intersectional feminism (Bee, 2018; 2019; Eberlein & Bee, 2022; Pinzuti & Bee, 2022; s. f. gender and mobility: George, 2021; de Madariaga, 2013) or mobility justice (Sheller, 2018). Although I cannot discuss all the ways of representing cycling online in this paper, my aim is to explore and critically discuss the potential of vlogs by focusing on their sensory aesthetics using a close reading of a few examples.

2. Cycling Culture in Social Media

I will start with an example of the photographic social media practice of Berlin-based bicycle collective She 36 and then move on to videos on Youtube by influencer Juliet Elliott. These examples are not representative for cycling vlogs in general but serve as examples to demonstrate more conceptual arguments about cycling media cultures (Bee, 2022).

Since in most societies automobility is the dominant “mobility paradigm” (Sheller & Urry, 2006), cycling culture is predominantly a niche culture. Cycling, although imagined and celebrated as an individual activity, is often also a collective activity, be it organized by cycling collectives or cycling activists. Especially when it comes to cycling cultures, local offline and digital practices are coming together, as the initiative All Women Ride on komoot shows, a navigational app for cycling, hiking and walking. Cycling is celebrated by blogs like the one by Berlin-based cycling collective She 36. Their blog contains historical references to female cyclists, thus building memory and publicity for achievements made by women in the male dominated sector that is professional road cycling. In a post about road cyclist Tamara Polyakova, her accomplishments, victories, and achievements are listed. The post is part of a bigger digital archival effort to present female icons of cycling. These are collaged with childhood photographs and citations of women from the group on bikes: “When you receive your first bike as a gift, it doesn't matter where you are (...) The only thing that counts is RIDING it!” The blog creates counter perspectives to a predominantly male narrative of cycling history. Historical cycling personas and personal biographies are linked on the Instagram and Tumblr accounts of the group. Both are elements of the group’s cycling activism: role models in cycling and memories of empowerment through mechanically generated self-induced movement. These can be understood as strategies of appropriating mobility as well as urban spaces (Kern, 2020, p. 170) by using photography and biographical narrations. She 36 also self-represents their activities in photos like fixie trick cycling in public urban spaces. The style of the group moves between punk and skate movements, retro aesthetics, and alley cat (messenger-style lane racing). The members pose with their bikes in ironic group photos like one in which the group is assembled on an excavator. These images show how a collective of cyclists as well as cycling as a collective activity are portrayed using visual and narrative techniques. In doing so, the practice of blogging connects to historic meanings

of women on bikes in public spaces as practiced by the suffragettes, for whom the bicycle was a “freedom machine” (Keck, 2022; Ross, 2021).

During the early 20th century, the bicycle historically and drastically expanded women's range of movement. Early on, women posed with bicycles (Kinsey, 2011); by taking photographs, the suffragettes were able to circulate images of women riding bicycles in public spaces. Like the bicycles themselves, these images were vehicles of feminist mobility. Mobility is not only represented but (pre)figured in visual practices that map out mental and imaginary spaces.

In an interview, a founding member of She 36 told me about the vlog *Fixed on Fixed* (Raechel Harding, 2015), a short film from Australia featuring female fixie riders. It was this vlog which inspired her to form a cycling collective. This might be only one example of vlog culture circulating and inspiring cycling practices, but it shows how online and offline practices potentially entangle not only by documentation but also by archival and other practices that contribute to the history of cycling. In this line of thought, mobility practices would not only be shaped by practices of walking, cycling, driving, etc., but also informed, negotiated, and stabilized by different intersecting forms of media.

3. Cycling Vlogs

In this part, I would like to address the imagery of post-cinematographic moving images at the intersection of sport and cycling culture. In doing so, I consider amateur films circulating on platforms like Youtube and Vimeo not only as representations of cycling, but as practices that interact with other mobile and data practices (Adey, 2017, p. 210).

Vlogs are often serially produced films by private individuals, companies, NGOs, journalists or state actors. They have experienced their rise in web 2.0 through participatory media formats. Many of them convey content and knowledge, engage in skill sharing, and, especially in the case of private individuals, have a diary-like structure. Films usually revolve around a theme such as nutrition, pets, repair, beauty, sports, activism, or political education, for example in the field of (political) self-representation or through citizen journalism (Frosh & Pinchevski, 2009), which can also pursue problematic and misleading information policies. For influencers in particular, the mix of content and personal life is attractive for establishing a brand. This often includes topics such as fashion, beauty and furnishing, but also household hacks. Sports and fitness vlogs have become a major genre across media in recent years, combining fitness tips, nutrition, and lifestyle. It is often criticized for its body politics and normative ideals (Gerling *et al.*, 2018, pp. 64-69). While vlogs are informed by fictional forms and aesthetics from other media forms and influenced by cross media storytelling, they stage themselves as documentary in order to make vloggers appear authentic. Vlogs have adapted the perspective, aesthetics and politics of the selfie, which uses jump cut montage and long takes to center a person in the imagery. Vlogs from amateur sectors have become more professional over the years, as has the vlog considered below, which integrates extra diegetic music and intertitles in post-production, as well as using montage more continuously, thus creating greater continuity between various perspectives, such as the selfie shot, the subjective view while cycling, and filming each other while riding together. In most cases however, cinematic procedures such as shot reverse shot are dispensed

with, since usually only one camera is used and the vlog in general does not aim at the narrative realism of cinematic modes of production.

Vlogs are often produced serially, e.g., weekly. They thus allow for a tighter (weekly) feedback loop between cycling as a practice and vlogging than for example, the representation of cycling in cycling films (Withers & Shea, 2016). They are also potentially more embedded in mobile practices of cyclists – both those who make them and the cyclists who watch them. Riding thus generates images of cycling from a “grassroots perspective” feeding back into the cycling community. Mobile media are highly connectable to digital infrastructures and intensify meanings of mobility and movement by aesthetics, shaping relations and affordances regarding the choice of mobility – as well as the production and sharing of data in the interconnection of vlogs and fitness, tracking and health apps.

Particularly active in the field of cycling vlogs are semi-professionals who exhibit very diverse styles of combining sportive and cultural aspects of cycling. This way, they can be attractive to different types of cyclists at the same time. Protagonists appropriate symbols from cycling culture and remediate them in fitness vlogs.

Cycling vlogs can be roughly categorized into long races/traveling; repair and maintenance; messenger, tricks and fixie; mountain bike and downhill as well as road cycling and semi-professional riding in gravel cycling.

Especially in the field of sports and fitness, vlogs have become highly frequented media forms in recent years. Numerous cycling vlogs have emerged on the borderline of activism, self-promotion, and celebrity. Performative elements of appropriating the city also come into play, as in Diego Valero’s Youtube vlogs from Bogotá (see for example the channel Fixed Gear Bogotá). Here, cyclists film each other riding through the city with particularly creative way-finding and tricky riding, weaving through traffic as in courier films). The aesthetic transitions to skate and BMX vlogs as well as music cultures like hip-hop and punk are fluid. Fixie, for example, often stands as a symbol for cycling cultures. It cultivates the idea of DIY and opposes commercialism while strongly correlating with styles taken from messenger cultures. Vlogs by fixie riders show perspectives closely related to urban environments and other traffic participants. Numerous vlogs are staging tricks and the performative appropriation of the city and urban infrastructures through the virtuous parcouing of car traffic. In this activity, people film each other instead of employing the solitary and subjective point of view camera perspective of the GoPro or a hand held camera that is often used in sports vlogging. Since cyclists film each other to get a view of tricks and maneuvers like in skate board videos, this is somewhat different from the vlog described below which exhibits a mix of predominantly subjective and selfie perspectives. By filming and uploading these videos, perspectives of cyclists on cyclists experience greater dissemination. Also their perspective is literally performed in relation to city infrastructures.

Other vlogs can be seen in the tradition of travelogues that show long-distance rides using GoPros or small hand held cameras, which are also used in downhill. Some vloggers even use drones for documenting the performances. Bike packing and overnight trips with little luggage on rather sporty bikes have found a broader audience on Youtube or Vimeo in recent years, and often depict an escape from everyday life. It is no longer just men who share this kind of ‘adventure’ on video platforms. Cycling outfitters have addressed this segment more and more in recent years. The sense of community and

lifestyle of traveling is praised by the community in the comment sections (e.g. Kelsey Leigh's multi-part vlog from Pittsburgh to DC on their Youtube channel). In addition to ultra-long races of thousands of kilometers – e.g., from Alberta in Canada to Mexico – the bike packing genre includes relaxed tours lasting several days, which tie in with the travelogue genre (see here, for example, the popular German travel vlog by Radelmädchen).

The vlogs of Juliet Elliott, on which I focus below, often mix bike hacks and repair sessions with road cycling trips and, before the Covid-19 pandemic, participation in social events like amateur or semi-pro races.

Like the Youtube channel discussed below, some bike blogs and vlogs aim for an intersectional perspective in cycling. One example is the blog *A Quick Brown Fox* by African-American cycling blogger and the first Black professional cyclist Ayesha McGowan, who produces, among other media, a podcast interviewing women about their cycling experiences. Especially in the male- and white-dominated segment of road cycling, podcasts like McGowan's are important in appealing to the breadth of cyclists and opening up the meaning of cycling. This can also be linked to the collective *Ovarian Psycos* portrayed in the film of the same name by Joanna Sokolowski and Kate Trumbull-LaValle (2016), for whom riding together represent moments of anti-racist, queer-feminist empowerment. The mobility of cycling (spatial empowerment) and the mobility of media (empowerment through representation) double here.

4. Road Cycling Vlogging

In the following, I focus more closely on the channel of semi-professional cyclist Juliet Elliott, as her vlog illustrates well how sportive cycling and cycling culture interact. It also represents a sensory perspective on cycling that mobilizes affects. Her Youtube channel combines short films of rides, repairs, and bike fashions. Elliott is a British, white, former sports model and former professional snowboarder who is sponsored by various brands in her second career as a cycling ambassador. Her signature "Morning!" call starts off each of her videos. Part of her extensive social media presence includes weekly vlogs that revolve around cycling themes, often documenting and showcasing her performance on a road, gravel, or mountain bike. Elliott's style targets post-punk and empowerment feminism, intertwining product placement and fitness movements in which (vegetarian) diet and fashion also play a role. The adaption of symbols from subcultural movements such as alley cat and bike messenger cultures allows for connectivity to existing movements and connects aesthetically to retro chic beyond the bike scene. What is interesting here is the embedding of apps in the audiovisual and sensory media form that allow the spectators to be connected on several levels. Since sports and media culture are closely intertwined here, it is worth taking a closer look at the aesthetics that permeate these assemblages.

While Elliott is semi-professional, the mode of action of her vlog represents certain moments of empowerment for women in cycling that could apply to everyday life as well – even if not everyone commutes by racing or gravel bike. Here, of course, it is important to distinguish between sport cyclists, commuters, and cycling enthusiasts in terms of the target group.

Other vlogs, such as that of vlogger Francis Cade, regularly showcase protagonists of the international cycling scene. Filming while riding together, interviews and ethnographies of the cycling scene overlap in his vlogs, just as in Juliet Elliott's. Her vlog is predominantly filmed by her – unlike many vlogs made by more urban fixie related groups who film each other – and range from local to international events and rides. As a semi-pro, Elliott is not characterized by a sleek style comparable to many male road cyclists; on the contrary, her symbol is the anarchist cat and her arms and legs are covered by tattoos. Nevertheless she presents expensive cycling and street wear as well as gadgets. She thus embodies a mixture of punk, street fashion, DIY and feminism, which shows her to be a digital entrepreneur and influencer but also a pioneer of cycling that is no longer aimed solely at physical performance. At the same time, her vlog has the potential to radiate widely among groups of cycling enthusiasts that focus on a more than sportive dimension in cycling. This, of course, also makes the vlog part of contemporary forms of value creation through follower economies. Rather than the pursuit of sport alone and the enhancement of performance, this channel targets the creation of a cycling lifestyle and utilizes an affective strategy of branding which is very common to influencing in general. Affect includes more than the display of motions of the vlogging person but is embodied by aesthetic strategies on which I focus below.

Landscapes, from Devon in southern England, where Elliott lives, to the Lake District, to cycling hotspots in California, Mallorca, and Japan, play a central role in the videos. Scenery is an important part in the viewing experience and distinguishes cycling vlogs from other more place based practices like work outs. In terms of genre, travelogues and selfie aesthetics mix here and are remediated (Bolter & Grusin, 2000). Rides are often dramaturgically associated with an event, such as checking out a new café with the obligatory cake-eating of road-biking frequent-burners, swimming in lakes, rivers, or the sea, or a camping trip to small events. This is also important in terms of community building and narration because it celebrates cycling as a way to explore landscapes with a full body sensorium. An important point of entry for female riders might be this appropriation of a male practice of exploration and mobile perceptions.

Central to the viewing pleasure of her vlog is the actualization of cycling as a sensory activity, which through its multimodality, and the proximity of the camera to the body and predominantly subjective perspective, strongly contrasts the visual aesthetics of driving (Borden, 2012, p. 45). Sensory images of cycling produced in the channel are very different from car culture and literally introduce cyclist's perspectives into media cultures. During the rides, the video transmits affects that accompany cycling and can be actualized in watching from a subjective perspective on one's own body, when, for example, a particularly difficult climb has to be mastered or a particularly rapid descent is experienced. As in the Zwift performance app, Elliott becomes partly a kind of avatar (though not filmed over the shoulder) when we see her mastering sections of a gravel ride from a subjective perspective, or coming close to tears of exhaustion in races lasting several hours and compressed into minutes – such as a timed fjord race in Norway – or flying over hills on a mountain bike. Here, the camera creates affective intensity and sensory transmission of strong forces acting on the body.

Although Elliott focuses on races and rides in picturesque landscapes, her vlog is adaptable to everyday culture. Specifically the more cultural aspects make it accessible to a wider audience beyond sport, or, put differently, the aspects of fitness and culture are so intertwined, that often fitness culture and body images become the lingua franca of

vlogging. The channel also combines skill sharing and repair or other bike hacks as “skilled practice” (Grasseni, 2009), called for by the community in the comments below the videos. The mundanity of cycling in commuting or training is linked to events, such as races or special rides like bike packing excursions. The kinesthetic and mobile perspective as well as the staging of cycling culture allow the viewers to relate to their own cycling practice aesthetically – especially the style, the bikes, and the fashion are formative. I am less interested in a mimetic appropriation of what is presented in vlogs by cyclists than in the sensory and affective aesthetics of cycling explored in vlogs. Through the mobile camera that Elliott attaches to her body during her rides that intertwines movement and joyful or strained affects, affects and embodied knowledge are also actualized and mobilized in the spectator’s body. The style and rhythm of cycling is experienced and thus potentially appropriated; moreover, the vlog images positively connote cycling, which enables affective connectivity to the particular style that connects viewers not only to the individual influencer but also to the cycling community. Affective branding of cycling might also include creating positive emotions concerning individual influencers as a brand as well as in regards to the presented products. Within the vlog, different functions and styles of social media combine. Style, the mixture of symbol, fashion, body images, bikes and camera aesthetics, operates here as a “social aesthetic” (Born *et al.*, 2017) in the making of communities. The social aesthetics of cycling culture brackets apps, platforms, and image styles. Images of cycling contribute to a culture of mobility, which in turn establishes a particular spectator position that draws on a body memory. The circulation of images thus also has the potential of a bodily and sensory aesthetic, not only on the level of production, but also of reception. In this exchange, not only a narrative and meaning-making element emerges, but also an affective value (Masumi, 2018) that shapes the reception of cycling and supports affective branding of influencer vlogs as well.

Processes of exchange are also visible at the level of “platformization” (Poell *et al.*, 2019) as well as the interconnection of platforms and apps: Elliott’s use of Zwift, which she integrates into the vlog, like other vloggers do too, is potentially directly connectable to one’s own use of Zwift, which in turn enables virtual riding together. In this case, also physical performance, brand loyalty and community building are connected – also on the level of data production. Zwift, like komoot, also features community aspects. The training medium for riding at home and the social medium of the vlog are condensed in Elliott’s vlogs, but also ultimately extended; her videos are connectable to bodily and social techniques in that they are themselves part of the social and audiovisual networks that branch out into everyday life and other practices. The interaction between the different platforms and applications as it is typical for digital media ecologies (Fuller, 2005) is central here to intertwining techniques – cycling as a bodily technique and the social aesthetics of cycling communities with training applications. But these interconnections of different visual cycling practices are also a way to connect aesthetics of vlogs with the production of data in application. Visual representations of speed and are for example connected in a vlog by Katie Kookaburra, who occasionally shares metrics like speed and incline in her Youtube channel mimicking a car display or produces videos in partnership with Zwift. When influencers integrate Zwift into their vlogs, the visual arrangement doubles because – as in the vlog – cycling is watched as avatar sport, similar to a gaming video showing a gamer play. Zwift can be connected to a sensor that measures cadence. Similar to other bodily data, such as through the bike

computer that combines speed and data from sensors that measure heartbeat and pulse. Through integration into the vlog, cycling becomes a way of producing and connecting various forms of data. Potential interfaces to smart devices can also connect GPS signals and therefore mobility data to tracking and navigation apps like Strava and komoot, for example, applications that form social media interfaces. Combining physical data and mobility data makes cycling applications an interesting field of data capitalism. Through the visual cycling culture through which communities organize themselves, these applications are not only popularized, and used to connect a community of cyclist to an influencer on different platforms, but also aestheticized in the vlog.

A vlog like Elliott's entangles the bodily technique of cycling with social media, data tracking, and techniques such as self-optimization. A prototypical "intraaction" (Barad, 2007) between bodies and techniques of a digital community can be experienced in a condensed entanglement of cycling and vlogs.

5. Transindividuations of Cycling

What becomes paradigmatic in the assemblage of media practices around cycling media is the processual interconnection of aesthetics, data production, mobility, and community building that I would like to call, with Simondon (2020), the individuation of cycling in its technical milieu. The vlogs can be critically seen as governmental techniques (Foucault, 2009) of the (sportive) self (Martschukat, 2020), but also – simultaneously – they are a technique of mobility: an aesthetically informed way to relate the self to the environment as well as to the cycling community in a mobile way. Techniques of cycling, techniques of the subject, and techniques of the vlog here couple into an assemblage. This can contribute to cycling cultures and the creation of communities on the one hand. On the other hand, community building is a strategy of influencer economies and social media in general.

Gilbert Simondon described the dynamic and interdependent interplay of environment and techniques as individuation which was taken up in socio-technical views on the mutual shaping of social practices and technology. He extended this notion to the realms of the psyche, and to living as well as material techniques. For an activity to achieve consistency, a process must undergo a repetitive turning back upon itself. In this "ontogenesis", a milieu is folded inward; through these processes, the milieu in turn changes. Cycling, from the perspective of the theory of individuation, can be described as a set of processes that intertwine techniques: techniques of the self, of cycling, and of media representations. Cycling intertwines milieu and practice and in turn affects the milieu of public space as well as one's own subjectivity. Vlogs and other cycling media potentially shape this interaction and in turn form a milieu themselves. This individuality, Simondon argues (2020, pp. 9-11), is directly connected to a collectivity that is more than the sum of the individuals. This he calls transindividuation, or "group individual" (2020, p. 9). Cycling here is a trans/individual as well as technical practice. It entangles digital and public milieus with individual bodies creating a community and a (digital) milieu of cycling.

The question of individuation, at the intersection of mobility practices and media of cycling, is interesting because it shapes a social aesthetic, a "materiality of identity" (Hediger, 2016, p. 265) of cycling. However, instead of assuming a more or less fixed

identity of cyclists, I propose to think of individuations as dynamic processes that do not represent a cycling individual. Individuations simultaneously take into account material, psychological, technical and social aspects of cycling. Cycling is thus understood as entangled with digital media culture without being just produced by or influenced by it. Technology and sociality intertwine in processes of exchange between individuation and milieu, of body, apps, and visual culture.

This approach allows me to shift the perspective away from phenomenology or purely sociological analyses of contemporary cycling identities, such as subcultures in media or individuals deploying media, to an intersection of the individual, social and technical – indeed, aesthetic and digital – practices. Even if the vlogs described here are not representative of the broad, heterogeneous, and dynamic field of cycling in general, I use them as an example for digital cycling cultures that connects individuation of mobility practices, community, sensory aesthetics as well as applications to track, measure and translate cycling into data. This model emphasizes the processual openness of media forms of mobility that intertwine in cycling. Cycling is thus not one singular technique, but combines a range of techniques, being itself an interface to different sorts of media.

This interconnectedness makes sense especially in the affective sensory interfaces where cycling culture creates new ways, styles, eventually fashions, and thus subcultures, which in turn are intensified in image and body practices. Cyclists invent styles, signs, and fashions that play a central role not only in cognitive capitalism (Massumi, 2015, p. 25) but also in data capitalism (West, 2019). Specifically this interconnection of different sorts of data with lifestyles displayed by vlogs opens up new markets that extract value and eventually data from cycling communities.

At the moment, cycling is being appropriated in many ways on social media, even though white and able bodied perspectives still dominate their visibility. Cycling continues to differentiate itself in the face of certain subcultures, styles, and markets. It can be variously appropriated – but this makes it also attractive for a new market of lifestyle products as well as applications.

Mobility practices draw on imaginaries and self-image, clothing, navigation, and infrastructures (and the circumvention of the auto-centric violence inscribed in them). These practices are linked to others, shaping aesthetics that also have real effects on the enjoyment of cycling. Here, Simondon's theory of individuation as simultaneously individualizing/collectivizing and aestheticized/medialized as trans/individuation takes hold. Elliott's vlogs, for example, generate affective value and additionally charge the symbols of cycling with a kind of joy, which is to be understood, in Brian Massumi's terms, as a virtual value of affect that can be commercially siphoned off. But they also carry the affect of the joy of cycling, and thus enable new, bodily references to city, space, and self: cycling can be enfolded in these socio- and self-techniques and, conversely, force, enable, and affirm them. Cycling can also be a practice of creating a milieu that empowers individuals who are not often thought of in the planning of public space to cycle, to appropriate space and also to travel rural landscapes.

Therefore, the argument here exceeds a linear logic – we do not have a pure culture of cycling that in a second step is capitalized and medialized, and not all of the online cycling culture determined by social media economies can be reduced to the development of new markets and data strategies. We must nevertheless take seriously the appropriation signs and images of cycling culture (Furness, 2014) in the production of cycling bodies and circulating body images in order to understand the role of aesthetic phenomena for a

culture of mobility. Using Simondon's theory of milieu, one can say that the interconnected media of cycling becomes a milieu of possible individuations of cycling, which is not to be equated with an individuation of the cyclist. Inversely, cycling shapes that milieu of images, apps and sensors individuating around the body in cycling because it creates favorable conditions to combine aesthetics and data practices as well as mobility data and physical data. Simondon's theory of individuation and milieu should be understood here as reciprocal: individuation also affects the milieu of transport and enables it to change.

Vlogging bears the possibility for amateurs displaying their practices to contribute to the public imagery of cycling. In contrast to cycling in films, in digital media the representation of cycling is closely connected to using apps and platforms. Here, cycling is part of a network of digital infrastructures like apps with social media functions (i.e., komoot, Zwift, Strava).

6. Datafication and sensory cycling aesthetics

Although data mining must be taken seriously, cycling vlogs create other images of public spaces than the dominant car culture and contribute to a different understanding of mobility.

Vlogs, as opposed to films, circulate and participate more directly in an everyday culture. Although films are part of cycling communities, like the documentary *Ovarian Psychos*, which is frequently screened in events organized by cycling collectives or activists, vlogs are more embedded in other media practices as argued above. Vlogs and apps are more closely interconnected. Both media participate in a network of media and communication, like social media and platforms with the ability to comment, like, share etc. A cycling trip can be seen on Youtube as well as cycled by sharing the data on komoot. So the experience is datafied and can be perceived audio-visually, as well as applied in one's own activities – online or offline, visually and by using data, for example by indoor cycling with Zwift.

Secondly, vlogs generally activate a full sensory spectrum. Films as well are able to address the spectator with a full sensorial spectrum (Sobchack, 2004; Marks, 2000). But the vlog, with its camera often positioned subjectively or hand held near the body supports more the illusion of the avatar as well as the connection to a "real" person, i.e. not an actor. This person, the vlogger, in whose life – however staged – the viewers participate at least in part and with whom they share a passion is often active on different platforms. The sensory aesthetics connect practices, bodies and landscapes/urban environments. Close to the body of the vlogging cyclist, the viewer participates in movement by kinesthetic senses and feels the breath and breathlessness of riding. But instead of being a direct, unmediated experience, this set of experiences is highly mediated. The affective power of riding becomes a lived experience especially when you share the riding experience. This can be supported by metrics like in the vlog of Katie Kookaburra mentioned above. If you see her climb a steep hill, you might know what this feels like when you see how steep it is – let's say 10% rise – because you know what it feels like your own actualized bodily knowledge. The datafication here supports the process of circulation as well as the intensification of the experience. Vlogging serves as a bridge intensifying the experience and the interconnection of applications. This might be

the case even if you do not ride together directly but share a common interest or aesthetics of an online community.

Both the datafication of cycling and the audiovisuality/sensory are two sides of the same coin that makes up cycling's social as well as digital aesthetics. Viewed through the perspective of social aesthetics, aesthetics are not a surplus in riding but fundamentally shape cycling experiences. Especially in networked cultures, sports aesthetics heavily depend on and are influenced by visual representations of activities including certain cultivated styles and body images. This might as well open the door to commercialization, but also shows that aesthetics are neither secondary to practices nor to the interconnection of different sorts of platform media. A community – online and offline – cultivates styles that reciprocally stabilize individuations of cycling. These are important in everyday life, where cycling often plays an undervalued role in the 'hierarchy' of mobilities. Mobility does not start on the bike – it is produced by many decisions that direct the body habitually towards certain ways of mobility. The presence of cars in urban environments, as well as their omnipresence in audiovisual culture including big commercials in print and online, as well as films, normalizes car centrism. Vlogs might as well be a way of articulating other perspectives and other relations to public spaces. Since the bi/tricycle is an “open media” (Schwaab, 2022, p. 189; Bee *et al.*, 2022, pp. 11-13) – compared to the cocoon of the car (Manderscheid, 2018, p. 34) this again connects to the sensual quality of cycling vlogs that cultivate an experience of openness and relatedness with the landscape, urban or rural and therefore public spaces that enable different forms of communication than in a car (Aldred 2010). It also revalues self-induced movement even at the price of an ambivalent fitness culture that normalizes certain bodies (and bikes, usually with only two wheels) and devalues others, and which on the whole is connected to the fitness imperative of neoliberal societies (Martschukat, 2020) that is most visibly embodied by fitness vlogging. Where the car privatizes public spaces and separates the inside from the outside, cycling connects inside and outside (Schwaab, 2022). It is this very quality that makes it also a very vulnerable practice in a car culture. Its openness and connectivity to different media and modes of transport is also a gate for data production that migrates from sports to everyday culture in “smart cycling” that aims to perfect cycling as a consumer experience (Nikoleava *et al.*, 2021).

7. Résumé

While the car is the symbol of Fordism and its standardization processes, which are also very much inscribed in most cities in Europe and the Americas as well as Asia, cycling can be a very flexible practice, that is currently being negotiated and reinvented. Nevertheless, it is practiced, and therefore shaped, by communities that cultivate cycling aesthetics. These community do not necessarily ride together but share a digital practice. Simondon coined the term “transindividuation” (Combes, 2013) to describe the mutual production of collective and individual techniques embedded in social and technical milieus. For him, technological practices are also forms of individuations. This has a dynamic of reciprocity. Media cultures individuate in the milieu of cycling and cycling individuates in the milieu of media cultures. Cycling operates in both fields: as a social, technological, and collective practice that relates bodily techniques, images, practices (mental, material, bodily), and social practices in public spaces. Cycling is produced as a

visual and sensory digital practice. Vlogs contribute to the emergence and/or stabilization of cultures and communities of cycling. At the same time, they allow for an individual practice, or support riding alone with virtual communities. Representations contribute to the individuation of cycling as well as to the one of cyclists that is certainly more needed in spaces where cycling is not as normalized as in the Netherlands or Copenhagen. Instead of sticking to cycling identities, the term individuation or transindividuation can describe the complex becoming of entangled techniques of social, digital and sensory media, data production, and bodily practices producing cycling mobilities. Collectivity seen through cycling media, is not a fixed and stable group. It is more a situational and local activity that emerges entangled with digital practices. Cycling seen this way is not a pure technique, as it is often imagined, a pre-technology or back-to-the-roots gesture. Instead, it is often related to digital infrastructures, even if – as is the case with several DIY cultures– it tries to subvert auto-centrism.

In digital media ecologies different platforms and apps are more and more interconnected, creating an environment. Cycling media practices can connect physical data and mobility data by sensor technology that can also be shared with the community.

Vlogs can be a way to support multiple intersections of subjectivations – even partial, very situational ones – and (digital) mobility practices.

Cycling has potential to also reach out to existing cultures by connecting with music or fashion than by staying the same or introducing a general image. The processes of cycling connecting to different social movements shows the potential to create new alliances between cycling and activism as well as different cultures and milieus. Seen through the lenses of social aesthetics as well as Simondon's socio-technical theory of individuation and milieu, vlogs and images can be media to negotiate meanings of cycling that feed back on the practice itself.

But cycling is also attractive for data extraction specifically because it is celebrated as culture in this very moment. For cycling specifically, the emerging cultures are running the risk of becoming a scene of commercial data mining. In digital culture, it becomes a practice that produces mobility and physical data at the same time. By using tracking apps as well as sharing data from cycling computers, apps interlink with the creation of cycling communities that produce data about cycling. These productions are small scale and flexible, given that cycling measures the public space different than cars. The creation of cycling culture is therefore closely connected to the datafication of cycling. Specifically the idea presented above of individual as well as collective cycling does not connect only members of the cycling community but sees cycling cultures in the larger context of the digitalization of traffic in the so-called smart city. Cycling so becomes an attractive medium for digital urban infrastructures. Smart applications for cycling connected to health apps like Lumos helmets and other gear even underline the trend the interconnection of platforms and smart things, transforming cycling into smart cycling (Nikolaeva *et al.*, 2021).

Both perspectives – the applications and the production of data as well as the community building are connected as it is the case for different online communities in socio-technical individuations.

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