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CHAPTER TITLE: THE INVISIBLE LIVES OF SELFIES

Authors: Zoetanya SUJON, Mehita IQANI, Jonathan SCHROEDER

Zoetanya Sujon, Reader, Communications and Social Technologies, and Programme
Director in Communications and Media at London College of Communication,
University of the Arts London, UK

Mehita Iqani, South African Research Chair in Science Communication at Stellenbosch
University, South Africa

Jonathan Schroeder, William A. Kern Professor in Communications, Rochester Institute
of Technology, New York, USA

The selfie has rapidly emerged as a significant aspect of visual culture. Selfies can be considered a kind of self-portrait, with roots in artistic self-representation, popular photography, and digital imaging. However, the visual image is only one, albeit crucial, component of the selfie. How that image circulates, how it is consumed and commented upon constitutes key considerations of how selfies work. But the vast majority of actions that affect selfies occur without much knowledge of the selfie taker. In this way, selfies implicate a host of concerns beyond the representational, including commercial, ethical, and political issues arising from their status as data.

The selfie, while clearly a visual phenomenon, also includes data traces, facial recognition and tagging systems, data tracking and analytics that are invisible to most selfie makers and consumers. These back-end processes invoke multiple concerns in the realm of privacy,

surveillance, and security, in part due to the enormous amount of information – data – posted selfies contain.

This article focuses on the “invisible” aspects of the selfie, turning the gaze to understanding what we don’t see when we look at, post, and comment on selfies. The analysis reveals what lies beneath selfies, asking: What is being done with selfie data? Several aspects are discussed, including how selfies produce machine readable data, used by programmers, marketers, and governments. AI filters and facial recognition software makes an appearance, along with their inherent racial and visual biases - mirrored, reflected, and caught in the shadows. Finally, this article frames filters, data selfies and the face as particular genres of visual culture increasingly linked with algorithms, filters, and data, to question the cultural, political, and social implications of the selfie.

Defining the selfie: representational roots

From one standpoint, the selfie represents a contemporary manifestation of the self-portrait, a long-standing genre in visual culture, and as such, selfies constitute a tremendously expanded range and number of self-representations (Schroeder 2021). The selfie’s incessant focus on identity mirrors the corporate embrace of identity as a core branding component. Further, as selfies generally appear within branded social media platforms, the logic of branding pulses through them, as they serve to draw attention to websites, capture data, and create clickstreams. Selfies are underpinned by the ideology of the self-portrait – that such self-representation constructs a meaningful image of the self. But selfies transcend the historical notion of a self-representation, as they can be considered assemblages which connect self, space, technology, and social networks (Hess 2015). The selfie’s integration with the internet constitutes a key transformation of its self-portrait heritage, changing how it is possible to think of the cultural, representational, and visual dimensions of identity.

For an illustrative example, one of the first images that comes up when searching for “selfie” on the vast Getty Images database shows a brightly dressed woman looking into her phone, apparently in the act of taking a selfie. She gazes intently, clearly intending to pose for her selfie.

Of course, what is visible is not the resulting selfie. Rather, the image represents a stock photographer's idea of a selfie – showing a key step in the process of producing a selfie. Any sense of how the selfie eventually becomes enmeshed – as data – with the computational technology of the internet remains hidden. The image reflects a popular conception of selfies as expressive – an aesthetic act that tells tales of individuals.

The image, along with many other similar shots, was taken by South African artist Delmaine Donson. However, the image is “tagged” with over fifty terms, including Influencer, Fashion Model, Selfie, Mobile Phone, Confidence, Cool Attitude, Fashion, and Multiracial Person. So, in a sense, the photo does hint at how images are tagged, cataloged, and indexed. This photograph is available on the iStock site, which is owned by Getty Images. That site provides the date when the photo was uploaded (October 16, 2020) and lists two types of tags: *Key words*, such as Selfie Photos and Cool Attitude Photos, and *categories*, such as Stock Photos and Influencer. However, these represent only a fraction of the “hidden” tags used by the Getty Images site to document, promote, and index the photo.

INSERT FIGURE 1

Figure 1 Oh snap! Studio shot of a fashionable woman taking a selfie against an orange background. Photo by Delmaine Donson. Getty Images.

<https://www.gettyimages.co.uk/detail/photo/oh-snap-royalty-free-image/1280349920>

The vast majority of selfie discourse focuses on the act of taking selfies and the visual appearance of selfies. For example, a typical newspaper article suggests: “The fundamental appeal of apps like this is, of course, to our own self-involvement. Much has already been said about the way the internet fuels self-obsession by pushing us to perform for others: On Facebook, people announce banal life developments and political opinions; on Instagram, we interrupt our fun to show others how much fun we’re having; on Twitter, we mine our personal lives for laughs. But there is also something to be said about how digital tools can function like fun-house mirrors, feeding a wholly private fascination with ourselves” (Haigney, 2023, 9). Much concern has been voiced over the “narcissism” of selfies (Murray, 2020). Researchers have found that young people consider the selfie an essential aspect of contemporary life, amid

worries that they would be “invisible” without posting selfies to social media (Cambre and Lavrence 2019). Thus, selfies have been held up as potent communicative, ideological, and political tools, particularly for under-represented and socially marginalized groups, serving, for example, as representational tools for trans visibility, fat visibility, and disabled visibility (e.g., Eler 2017; Murray 2020).

Turning to another dimension of invisibility, this article focuses on the datafication of selfies, that is, how selfie “tags” produce realms of data, subject to algorithms, data scanning, and commodification, generally without the awareness of the people who produce and post selfies. This presents a datafication turn in understanding the selfie: examining the invisible data imprints of selfies offers distinctive insights into how the digital realm commodifies human experience, even such ubiquitous and seemingly innocuous actions as taking a selfie. As such, it serves as an important counterpoint to considerations of the selfie as a primarily visual phenomenon and points to the ubiquity of the cultural politics of data, beauty, and an emerging filter culture.

Commodifying Your Selfie: User Generated Images for Sale

The selfie, rooted as it is in the participatory ethos of social media, can be characterized as a significant form of consumer self-expression, while at the same time serving as an increasingly important digital communication tool. Selfies are both commodities and consumer practices (Iqani & Schroeder, 2016). Selfie posting platforms such as Instagram, Facebook, and TikTok are some of the most valuable brands in the world. As art historian Derek Conrad Murray observes: “As a technological and capitalist-driven form of visual representation, the selfie is as much a gateway into the economics of social division, as it is a highly personalized, affective vehicle for self-expression.” (Murray 2020, 41; see also Bleiker 2018). This transparent commodification offers several implications for understanding the selfie.

The selfie, as a visual style evolving from snapshots (Schroeder, 2013), can be harnessed to communicate aspects of “authenticity”. Of course, many branding campaigns draw upon the selfie to promote goods and services. And the social media platforms on which selfies appear

profit massively from selfies. Further, many influencers (Abidin, 2016; Khamis et al., 2017) harness their selfies in a self-branding effort to capitalize on their appearance, expertise, or sex appeal.

From design theorist Jessica Helfand's point of view, selfies are a "booming industry" that "drives everything from software development to plastic surgery to both the real and virtual cosmetics market. At once a behavior and a language, an economic driver, and a cultural framework, that 'love letter to yourself' is part of a far more complex social apparatus that takes the distributed you and injects its own tags, prejudices, judgments, replications distortions, meanings, and multiple points of micro-harvested data, thereby subverting the you of your own bespoke narrative." (Helfand 2019, p. 238). In these ways, the branded commodification of the selfie poses existential concerns over agency, identity, and subjectivity.

Recently, a number of firms have appeared that monetize selfies in a distinct turn in the way selfies and branding intersect. These companies offer photographers the opportunity to sell their selfies, along with other photographic subjects, by creating content for stock photo databases – content promoted as "authentic" for brand advertisers to deploy in their strategic communications. For example, one such firm, Candidly, posits: "Our photos share unique stories and are proven to be more successful in marketing campaigns than traditional stock photography." Another, Stackla, claims: "User-generated content drives conversions, loyalty, and sharing at every marketing touchpoint." Olapic, "The #1 Visual Commerce & Marketing Platform," "turns consumer-generated content into your most valuable brand asset." These firms are seeking to monetize the enormous popularity of selfies by creating direct pipelines between ordinary people who take selfies and brands that are interested in buying those images to use in their promotional communication.

Examining the data life of selfies: AI, face filters, data extraction

Most often understood as *visible* self-portraits on social media, selfies also occupy a complex position at the intersection between visual culture and datafication processes. What is visible looking at a selfie is only a small part of a much larger data ecosystem involving the back end of

social media, digital platforms, automated and machine vision, apps, and services dedicated to processing and circulating data.

Looking at selfies through the lens of data and datafication has two major implications. First, and in line with the exponential production and extraction of personal data across digital landscapes and assemblages, ‘data selves’ are emerging (Lupton 2020). Movement through social media, search engines, ubiquitous tracking technologies from cookies, and location tracking means the multiplication of points for the generation and extraction of human data. The pervasiveness of such processes is directly linked to the rise of new industries and what some have called the behavioral quantification sector (Couldry and Meijas 2020) and the rise of surveillance capitalism (Zuboff 2019; see also Giroux 2015). Indeed, every click, view, like, and digital movement generates data made visible through data processes such as shadow profiles, shadow banning, algorithmic profiling, personalization, and targeted advertising.

Second, datafication and deeply entangled human-data-assemblages mean an extension of the self across and within often hidden multiple points, services, apps, devices, technologies, and platforms. Yet, focusing entirely on the visual, facial recognition, generative networks, tagging and artificial intelligence (AI) marks the emergence of a particular visual process of datafication, the data selfie. This is more than just the data traces making up machine readable and shadow profiles of users. Instead, data selfies include specific both human and machine-readable visual information such as *data images*, composed of personal data and predictive analytics. These data images are amalgamated into user profiles and linked to that visual information. Like datafication more generally, such data extractions, flows and processes are often intentionally obscured by platforms and companies as proprietary and involve levels of technical complexity that can be off-putting to most ordinary users. To better understand the visibility of data selfies, this article looks at facial filters using generative AI such as Lensa and TikTok’s in-house filters, bias, and discrimination of facial recognition technologies, and what these mean for standard data collection practices.

Facial filters

New kinds of facial filters have captured the popular imagination and hit new market highs in recent years. Moving on from the Snapchat inspired “puking rainbow” lens of 2015, filters can now realistically enhance your features for polished beauty pictures such as TikTok’s “bold glamour” filter or transform faces into anime style fantasy inspired characters as seen with Lensa’s hit filter “magic avatars”. “Bold glamour” darkens eyebrows, lengthens eyelashes adding smoky eyeliner, fuller lips, and sculpted cheekbones. TikTok users have made hundreds of thousands of videos with many millions of combined views exclaiming their surprise and shock at this filter, some even went so far as to explain their devastation at never being able to see their unfiltered faces in the same way again. Magic avatar began appearing across social media profile pictures and in Twitter and Instagram feeds, also amidst surprised, entertained and some horrified exclamations. Privacy concerns immediately accompanied these filters and photos, questioning what data was collected, how, and for what purposes.

Pioneered by Snapchat (then Picaboo) in 2011, face filters use facial tracking and augmented reality (AR) lenses to add doodles, augmentations, animated features, or other alterations. Introduced to Instagram in filters, they often appeared with bright appealing colors using silly motifs and presented as harmless ways to play with photos and new visual forms (Instagram, 2017). Yet, filters also pioneer computer vision (Bhardwaj et al. 2019, Ryan-Mosely 2021) and the same technical processes are used in photo-tagging – common for the automated categorization of photos in Facebook and Google – and facial recognition. Since those early days, filters and facial recognition technologies have exploded across social media and real-world landscapes. They are used across many industries from policing, border security, immigration control, surveillance, data analytics and a growing range of AI companies and initiatives.

INSERT FIGURE 2 Concept of digital personal identity, Photo by Dem10. Getty Images.
<https://www.gettyimages.co.uk/detail/illustration/digital-personal-identity-royalty-free-illustration/1443495508>

These facial recognition and machine vision features leads to the key innovation of new filters such as “bold glamour” and “magic avatars”. Bold glamour is one of many TikTok filters to use

“generative adversarial networks” (GANs) to develop “generative effects” to augment faces in real time (Effect House Team, 2023). Magic Avatars and Lensa filters also use generative AI and have now reached millions of users claiming their mission is “to democratize photo and video editing” ([Prisma Labs 2022](#)). While the outcomes may include startlingly realistic facial augmentations, people seem to react in horror or in fascination. The real questions are: What are the risks associated with these kinds of facial technologies? What is going on behind the scenes in terms of data extraction, collection, and circulation?

Facial recognition, bias, and discrimination

Despite the compelling sense of harmless playfulness accompanying many social media facial filters, facial recognition technologies have been documented as harmful. The impactful work of Joy Buolamwini, for example, found that Black and female faces were less likely to be accurately identified through computer vision and algorithmic systems than white male faces. Buolamwini, with world leading AI ethicist Timnit Gebru documents that machine learning, algorithms, and AI “discriminate based on classes like race and gender” (Buolamwini and Gebru 2018). This has serious consequences for those who are misidentified particularly when facial recognition is trusted and used for policing and security, both of which increasingly relying on data-driven racial and police profiling.

For example, in the 2020 European Network Against Racism report, Williams and Kind map current use of policing technologies across Europe, noting a disproportionately negative impact on ethnic minority and marginalized communities (Williams and Kind 2020). Facial recognition and social media monitoring are only two of a wide range of technologies and techniques used for predictive policing, racial profiling, and behavioral analytics. These are not neutral technologies and are often used most in already over policed communities, re-creating skewed results targeting Black and minority populations (Williams and Kind, 2020: 6).

Thus, it is not just the use of facial recognition for the purposes of punishment and enforcement, but also, the use, collection, and collation of social media and filter content for profiling which

can be problematic. Risks are not equal for different populations and as a result, there are differential and potentially serious consequences for minoritized and marginalized groups.

Industry standards for data collection, extraction and sharing

Although Lupton poses the concept of “data selves” (Lupton 2020) to understand the vast data traces generated, circulated, and extracted and monetized by digital companies and social platforms, there are extended visual and facial elements bundled up with the data *selfie*. It is standard in digital industries to set out privacy policies and terms and conditions which lay claim to the perpetual, royalty free and universal use of personal data. The same applies to the visual data generated, processed, and extracted in and through self-portraits whether it is through generative AI, facial recognition, and photo-tagging. There are multiplicities of data connected to online use and yet the face is both deeply personal and never unidentifiable. Faces are used as one of the most secure ways to lock and access technologies.

As an industry standard, most digitally based privacy policies and “terms and conditions” boldly state that, “We do not rent or sell your Personal Data, including photos and videos, to any third parties outside the Company or its Affiliates” yet they do “share your personal data” with partners, affiliates and some third parties – for example, see the Lensa privacy policy (Prisma Labs Lensa Privacy Policy 2023). As on Facebook, Instagram, Snapchat and TikTok, the primary motivation for data collection is to generate revenue through targeted and personalized advertising. For example, TikTok states that it collects and shares data from “other sources” such as “advertising, measurement and data partners” (Prisma Labs Lensa Privacy Policy 2023). The use of filters is tracked through “effects analytics” made digestible through user and advertising friendly dashboards showing the number of uses, locations of use, audience insights, related content, use over time, trending creators, related videos and more.

This means that it is not only about data extraction and collection but also the monetization of such content. Generative AI also draws on uploaded photos, computer vision and facial data as training data sets to continually develop AI capacities. TikTok and Lensa users already speak of uncanny feelings related to generative AI filters. Many have communicated deeply unsettled

feelings about what such filters might mean for their own well-being and relationships with their unfiltered selves, expressing concerns for reigniting body dysmorphia, eating disorders, anxiety, self-doubt and at worst suicidal ideation. While visual and facial data share many commonalities with other kinds of data extraction and collection, the intimately personal qualities of facial data mean there are also important differences – of which the full implications are still unknown.

From a technical perspective, AI filters are extending the scope and scale of data extraction, collection, and monetization. This has profound implications for the invisible circulation of data selfies, particularly in the ways facial data is used to inform platform technologies, sticky content, and increasingly personalized promotional and marketing cultures. There are real world implications for what those cultures look like and who and how people are visible in those cultures. Yet, there are further aspects of this divide between user-facing, visible selfies and the invisible life of data selfies which generates pervasive filter cultures.

The cultural politics of selfies and filter cultures

From a cultural perspective and focusing on user-oriented data selfies, there are two key dimensions to the cultural politics of selfies. The first operates on the visible level and relates to the ways in which the proliferation of portraits of people's faces shared on the web feeds into the development of facial recognition software, as well as the broader implications on the mediated political economy of beauty. The second operates on a shadow level and relates to the hidden data imprint produced by selfies, and the various ways in which these metadata may be mined or redeployed in ways to which selfie-sharers may not be able to consent and thus occupy a shadow domain.

The mirroring function of data selfies

At the mirror level of data selfies, what matters is the illuminating and often glossy visibility of the face. Technology is deployed to use or profit from the highly visible, unique, and specific features that make each person recognizable as themselves and no other. When the selfie acts as a mirror, reflecting the actual person, data is gathered and deployed into ever new technologies

of recognition and surveillance. Filter cultures shine a glamorous spotlight onto the face, seducing users to share ever more idealized and prettified versions of themselves online, while the portraits are fed into facial recognition learning that can be deployed in ways both useful and harmful.

INSERT FIGURE 3 Couple taking selfies in a house of mirrors, Photo by Westend61, Getty images. <https://www.gettyimages.co.uk/detail/photo/couple-taking-selfies-in-a-house-of-mirrors-royalty-free-image/685035781?adppopup=true>

There is a strong aesthetic trajectory from the genre of glamour photography featured on magazine covers (Iqani 2012; 2022) to the kind of glamorized portrait aesthetic enabled by the filters on social media platforms. Thanks to the built-in editing offered by various tools within the application, a user can capture and adapt their self-portrait within seconds, using only their smartphone in an outstretched arm, and a couple of thumb swipes. The collection of self-administered and automatically edited snapshots that end up on many people's social media pages are glamorous by default and offer a celebritized lens for self-representation.

Through the aggregation of selfie after selfie, users build up extensive online photo albums that portray multiple versions of presence, which although multiple are also to an extent homogenized by the filters that are applied to glamorize that presence. This could be summarized as the “mirroring” function of the selfie (see Murray 2020). The selfie mode of the smartphone camera is easily used as a mirror (to check one's hair or make up, to make sure there is no fragment of spinach stuck in the teeth). The selfie-collections on various social media grids mirror subjects' senses of themselves: at the very least, the version of themselves that they wish to make publicly available. This entails the “reflection” of the person positioning themselves as the central subject of a visual narrative about their life and who they are. It also functions as the surface level of facial data that is put out into the public realm.

There are obvious political aspects to the ways in which filters change the image of users' faces. Aside from adding silly or fun accouterments, such as bunny ears or vampire teeth, face filters also play into a broader political economy of beauty, including cosmetic surgery industries.

Glamour filters that add in the appearance of make-up, or which shift the facial features to imply plastic surgery or Botox, or which “teenagify” the face of someone in their 40s, 50s or 60s, can be seen as promoting certain costly and invasive procedures, and implying that natural faces, those not worked upon in some way and allowed to age naturally, are unattractive and undesirable. For example, FaceTune, a photo-editing application for mobiles and social media, has been implicated in generating unrealistic beauty standards, prompting many users to fixate on perceived facial imperfections (Sujon 2021).

All such filters push the narrative that the self must constantly be worked upon in order to conform with the aesthetics and ideology of consumer capitalism (cf. Taffel 2021). The valorization of youth and femininity is an old tactic of patriarchal, heteronormative consumer culture to make consumers – historically mostly women, but now arguably people of all genders – feel that they are not worthy of love or respect if they do not conform to stereotypical standards of beauty, and to encourage them to spend money in order to try to achieve those unachievable standards (Elias et al, 2017). There is therefore a strong need for ongoing feminist and queer critique of filter culture, and analytical and theoretical work that shows how filters contribute to the ongoing discursive construction of oppressive and exclusionary beauty standards.

Further, facial data in the public realm is easily harnessed by various web scraping technologies into facial recognition algorithms and AI tools (such as Lensa or TikTok filters). The practice of self-mirroring through selfie sharing feeds into bigger structures of power that seek to use the face as a tool. It is not by chance that facial recognition technology deployed for tasks such as unlocking one’s smartphone, or logging into one’s banking app, have emerged alongside the glut of selfie-sharing that has become so common as to be almost entirely mainstreamed. On the “mirror” level (that is, the highly visible, shareable, publicly normalized surface level of visible selfies proliferating across the internet), selfies thus feed directly into the advancement of technology.

Without doubt, facial recognition technologies have been developed using the many selfies that are shared online. The data here are highly visible, indeed illuminated, and offered in glossy and multiplying formats in public online culture and are captured and fed into the development of

technologies organized around facial recognition. These have both benign (such as, unlocking the phone), potentially risky (such as, logging into the banking app) and indeed possibly exploitative potential (for example where facial recognition technology is used by authoritarian states to quell pro-democracy protests, as is clearly the case in Iran, where feminist and allied protestors have to cover their faces to avoid detection by the regime in facial scanning in social media coverage of protests).

Thus, the “mirror” can be seen to represent users through selfies, yet they also, powerfully, reflect the cultural politics of filter cultures, in part through the aggregation of selfies into albums and often manipulating beauty standards and expectations and in part through datafication of these selfie albums, filters and selfies.

The shadow world of data selfies

Thanks to the mirroring function of selfies, one aspect of data selfies is that facial data are highly visual, in terms of how faces are being tracked, stored, and used in different facial recognition devices. There is, however, a deeper and invisible aspect to selfie data, and a number of potential applications which are hidden in the shadows of social media technology. The internet knows what its users look like, but what does that knowledge look like and what does that mean for filter cultures?

Selfie data encompasses not only the visible and highly visual aspects of faces, from skin tone to hair type to the geometry of facial features, all of which could be deployed in empowering or nefarious ways depending on the ideological position of those designing and deploying face technology. Other forms of data are collected through social media selfie culture, including practices in relation to filtering and editing, posting, and discarding, messaging, and sharing. This kind of data is used to build up sophisticated shadow profiles (e.g., see Quodling 2018, Aguiar et al. 2022) not only of what a user looks like, but how they might feel about how they look, how they might want to look - and also their contacts, devices, and linked data across the web. It is well established that smartphones are able to operate as surveillance devices on multiple aspects of user's lives, in both consensual and non-consensual ways: how many steps

are walked in a day, how well a person sleeps on aggregate, how long a person spends scrolling, where a person goes using map and navigation apps, what kind of music a person listens to, and indeed what is said in conversation when a smartphone is nearby.

In addition to datafication, all these details about the self – practices, preferences, and private habits – can be built into a detailed digital portrait of individuals. This is another form of selfie, one that is not organized around the face, but which includes equally unique and personal identifying information. The applications of this shadow portrait of a self (albeit a self-portrait lacking the critical aspect of self-agency and choice in the taking of the image) are multiple and entirely invisible from the public realm. In the cultural domain, it is not just data aggregations that are at issue. It is precisely the fact that these aggregations of data about individuals and their personal practices (Danna and Gandy, Jr., 2002) are hidden from the view of the people creating the data by simply living with and through the technological applications of their devices, that makes the use of that data by other actors for profit or control problematic.

The existence of the data themselves is not the problem necessarily, but that it is forced into a shadow domain, either intentionally hidden from view, or neglectfully placed there in the hope that users lack the time or energy to look for it. Users deserve to know what pictures of them are being built up by bots or algorithms, which data about their self is being aggregated and how, and to consent to any potential or actual application of it by any other actor, especially commercial or governmental. In much the same way that users consciously choose and consent to sharing actual selfies, so too should users have the power to decide whether they consciously and consentingly wish to share shadow data selfies.

A hidden, or shadow, data imprint is produced by the selfies that a user shares. These are hidden from public view in two ways. Firstly, shadow data are rendered in binary code, a specialized data language that not all people can read, even should they have access to it. Secondly, shadow data are buried below the surface/screen of social media content, aggregated, and mined in unseen and unshared ways by the owners of the social media platforms. Where that data is stored is not a matter of public knowledge, and what is done (or doable) with that data is equally

opaque. The hidden imprint of the selfie is a kind of shadow world, a data mirror that is as dark and unreadable as the selfie that partially produced it is glossy and illuminated.

The current number of estimated internet users on the planet is 5.30 billion. The scale of the combined data set of all of the data points gathered about each of those selves is hard to imagine, and it is without doubt that advancing technologies will be deployed to seek ways to turn that information to profit. The scale of data gathered about users may, however, be too overwhelming for individual users to engage with in an empowering or useful way. Users are more likely to be drawn to the shiny mirror of selfie culture, than the dark shadows behind it. Filters and features used to collect data are packaged in fun, glittery, and pretty ways, seductively offering ways to render the self into digital representation, while the willful obscuration of data collection remains hidden in the background.

Conclusion

Selfies can be productively conceived as both an important genre of visual culture and as a powerful form of self-expression. At once enabled by digital technologies and constrained by the political economy of consumer media, selfies mirror, reflect, and shadow the profound datafication of contemporary life. With new kinds of filter technologies, come new systems for mapping, counting, tracking, selling, sharing, creating, generating, and making sense of new kinds of data. These mostly invisible systems point to new frontiers in social datafication, and with the rise of generative AI, opens up not just new data markets but also new cultural and creative practices.

The selfie's historical precedents in self-portraiture show that cultural production is often not visible to viewers, for example, the painter's acts of painting a self-portrait or the photographer's camera clicks. Yet, generative AI and filters have no digital equivalent to brush strokes or camera clicks. Instead, digital tools and the visual data manipulated, created or transformed by and through them are owned by their creators and can be sold, shared, consumed in ways they determine. Yet, at the same time, filters, lenses and other selfie technologies enable users to play and circumvent visual conventions around self-presentation and algorithmic agency. These

tensions point to an urgent call for understanding the surface and the shadow, the visible and invisible.

Clearly, the selfie invokes multiple concerns in the realm of privacy, surveillance, and security, in part due to the enormous amount of information – data – posted selfies contain. The development of AI filters, facial recognition technologies, datafication, and monetization systems making up an emerging filter culture means the invisible lives of selfies reconfigure the cultural logics of the face and visual culture.

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