Literally, Ourselves

Kris Cohen

Personalization purports to be about the individual, to be about nothing but the individual. It promises, in fact, to augment the individuality of the individual. But, at the same time, personalization necessitates a conversation about a particular form of grouping. This is especially true in networked and computational forms of personalization. This essay, in being about the burgeoning personalization industry that is now headquartered online, is then necessarily about that form of grouping or group form. This is not a paradox in a technical sense, although it will feel like one in most other senses. The groups I'll be discussing aren't ones built through self-consciousness or will or even, exactly, by force or coercion.[1] They are more passive voice constructions, assembled automatically, records of ordinary life lived in proximity to electronic networks. *Data* is the singular plural shorthand we give to this process, a process with neither end nor origin, whose subject is actually quite difficult to locate, given that the person form of personalization is a derivative: generated not just from the surveillance of a single, named life but also from the concatenation of lives that are depersonalized by newer, weirder forms of belonging such as likes and preferences.[2] Personalization is yet another instance of the way that networked life mediates wildly between scales, disorienting all of our vocabularies of personhood and collectivity.

1. I discuss such groups explicitly in Kris Cohen, *Never Alone, Except for Now: Art, Networks, Populations* (Durham, N.C., 2017). This essay extends that work.

2. See, for instance, John Cheney-Lippold, *We Are Data: Algorithms and the Making of Our Digital Selves* (New York, 2017); Seb Franklin, *Control: Digitality as Cultural Logic* (Cambridge, Mass., 2015); Michelle Murphy, *The Economization of Life* (Durham, N.C., 2017); Gilles Deleuze, "Postscript on the Societies of Control," trans. pub., *October* 59 (Winter 1992): 3–7;

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Personalization, of course, has a long history, connecting such disparate formations as colonial governmentality, credit scores in the banking industry, the surveillance and policing of race relations, Web 1.0 and its antagonism to mass media, and the more innocuous-seeming proliferation of antimarket marketplaces such as the slow-food movement and Etsy.[3] What I refer to as the personalization industry marks a particular inflection point in this history: the automation and financialization of personalization at industrial scales and speeds, although with decidedly postindustrial organizations of labor.[4] To develop a mode of thought adequate to the problem of personalization, I've turned to a source that doesn't have personalization as its manifest content but does force thought into a kind of crisis that is useful for thinking about the effects of personalization once it becomes pervasive, endless, and unavoidable—specifically, Andrew Norman Wilson's series of photographs that he calls, after the Google work unit of the same name, *ScanOps* (figs. 1–3). As *ScanOps* will suggest (although not via exemplification), the personalization industry forces a violent encounter between, on the one hand, a long modernist tradition of criticism that relies centrally on the notion of the literal and, on the other, the slow elimination of the conceptual bases of literalist criticism by the computational

Steven Shaviro, *Connected, or What It Means to Live in the Network Society* (Minneapolis, 2003); Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York, 2018); and Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge, Mass., 2013); hereafter abbreviated *PV*.

3. See Ann Laura Stoler, *Race and the Education of Desire: Foucault's History of Sexuality and the Colonial Order of Things* (Durham, N.C., 1995); David Graeber, *Debt: The First 5,000 Years* (New York, 2011); Simone Browne, *Dark Matters: On the Surveillance of Blackness* (Durham, N.C., 2015); and Eric S. Raymond, *The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary* (Cambridge, Mass., 2001).

4. On postindustrial organizations of labor, see Jonathan Beller, *The Cinematic Mode of Production: Attention Economy and the Society of the Spectacle* (Hanover, N.H., 2006), danah boyd, "Hacking the Attention Economy," *Apophenia*, www.zephoria.org/thoughts/archives/2017/01/06/hacking-the-attention-economy.html; and Thomas H. Davenport and John C. Beck, *The Attention Economy: Understanding the New Currency of Business* (Boston, 2001).

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FIGURE 1. *A Picturesque Tour along the Rivers Ganges and Jumna, in India–Frontispiece* (2014), inkjet print on rag paper, painted frame, aluminum composite material. Courtesy Andrew Norman Wilson.

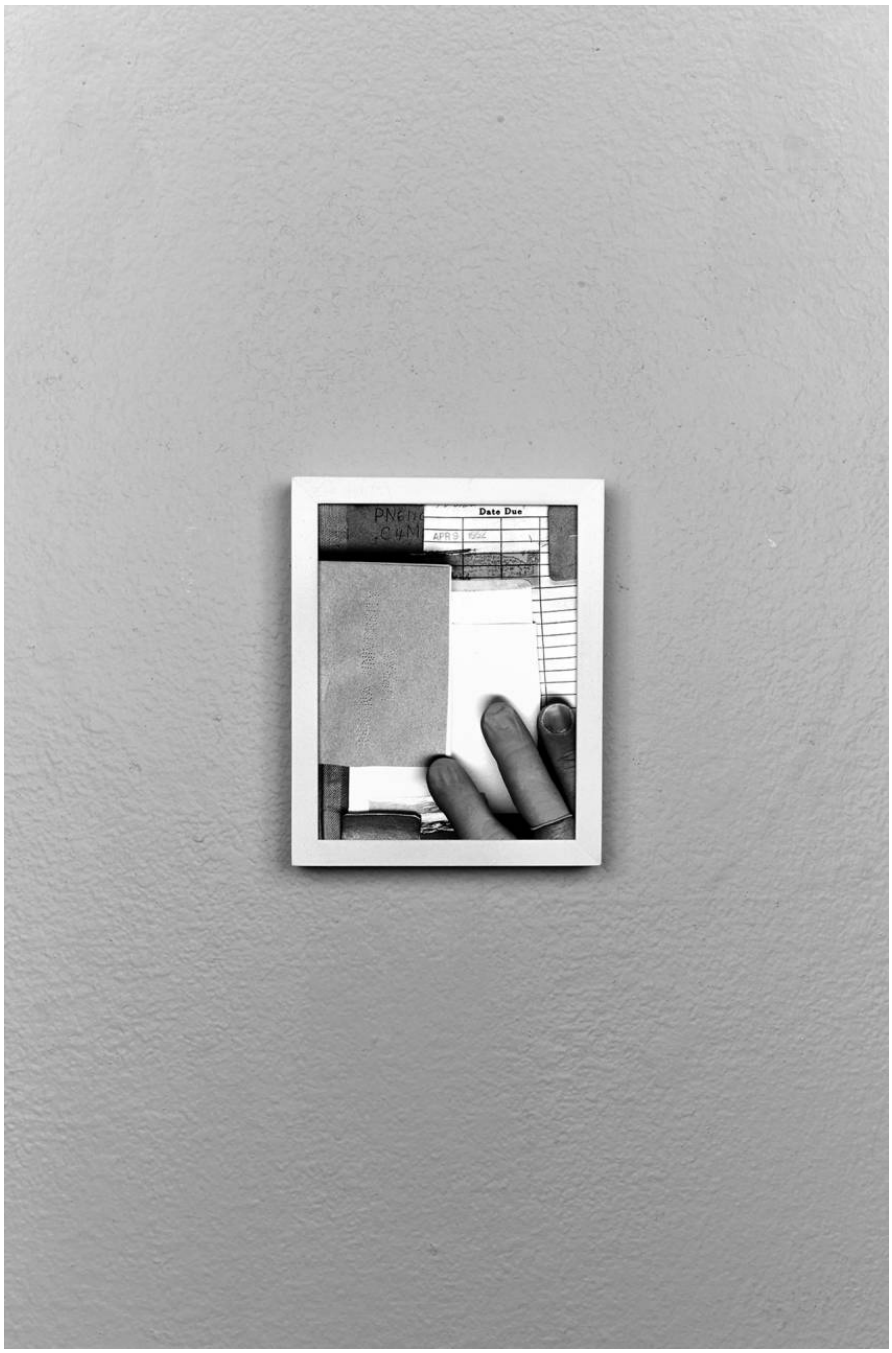

FIGURE 2. *Mother Goose's Melody: Or, Sonnets for the Cradle: In Two Parts, Part I Contains the Most Celebrated Songs and Lullabies of the Good Old Nurses, Calculated to Amuse Children and to Excite Them to Sleep; Part II Those of that Sweet Songster and Nurse of Wit and Humour, Master William Shakespeare–6* (2012), inkjet print on rag paper, painted frame, aluminum composite material. Courtesy Andrew Norman Wilson.

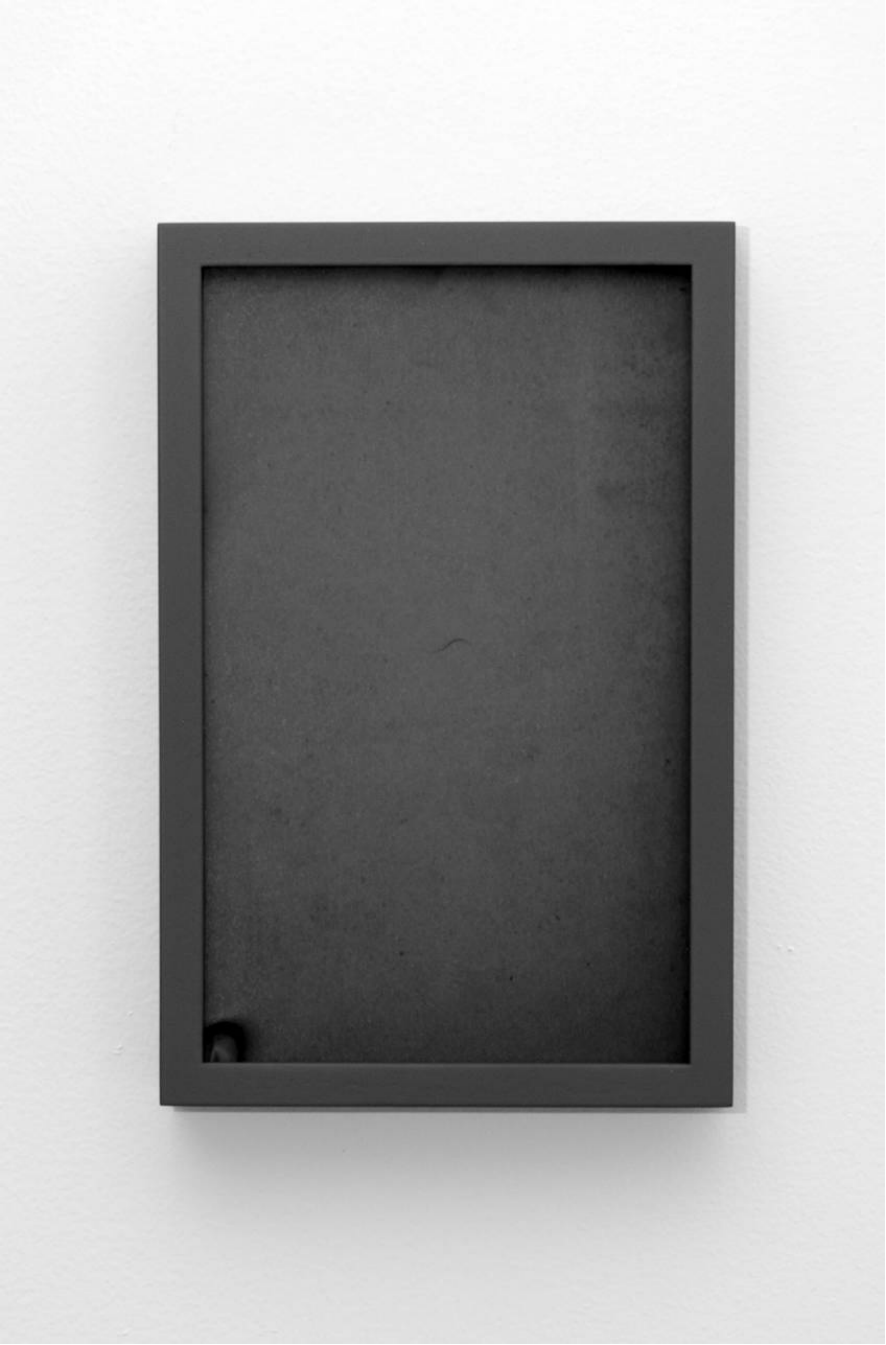

FIGURE 3. *Simon Newcomb–49* (2012), inkjet print on rag paper, painted frame, aluminum composite material. Courtesy Andrew Norman Wilson.

technologies that make ordinary life itself into an engine of personalization. To say it more simply, and more strangely, the personalization industry eliminates the antithetical structure on which the very idea of the literal depends, a structure wherein the literal holds open the possibility for an oppositional alternative to whatever plagues ordinary life or aesthetics. I don't mean the literal as a figure of speech (which is almost always insistently figurative, a fact which itself reveals the oppositional structure of the literal's real structuring fantasy) or as a favorite subject of philosophical thought.[5] I refer more precisely to the literal as a mode of critical thought that has had a long and lasting importance for modernist aesthetics, including, but not limited to, the brief moment in the sixties when the literal emerged as a flashpoint (and as an unexpected commonality) between conceptualist modes of artistic production and postexpressionist modes of abstract painting and sculpture.[6] In this modernist tradition, the literal isn't a quality of things or a stable state so much as a fantasy structure wherein critical thought can keep its options open by organizing life across antitheses: the literal and whatever aesthetical modality is set against the literal. Here, the literal sustains the possibility of choice and thus of a particular and, as we'll soon see, racialized form of personhood predicated on the possibility of being able to make this choice.

Given the proximity of the personalization industry to mass surveillance, it is no surprise that critiques of personalization exist. Nor is it a surprise, given the tenacity of the fantasy that sustains literalist criticism, that these critiques appeal to the literal in precisely the sense that I've sketched above, invoking a literal form of personhood that is presumed to be foreign, resistant, and prior to whatever the author fears personhood has become in the circuits of personalization.[7] As it turns out, this literal person form emerges out of and so extends a long tradition of white humanism that likes to think that it can step outsides the circuits of commodification. Such a person form, it doesn't go enough without saying, has only ever been

5. See, for instance, Brian Cummings, "Literally Speaking, or, the Literal Sense from Augustine to Lacan," *Paragraph* 21 (July 1998): 200–26; Mark Hazard, *The Literal Sense and the Gospel of John in Late-Medieval Commentary and Literature* (New York, 2002); Mark Linder, *Nothing Less than Literal: Architecture after Minimalism* (Cambridge, Mass., 2004).

6. For the flashpoint text here, see Michael Fried, "Art and Objecthood," *Artforum* 5 (Summer 1967): 12–23; hereafter abbreviated "AO."

7. See Eli Pariser, *The Filter Bubble: What the Internet Is Hiding from You* (New York, 2011); Cass R. Sunstein, *Republic.com* (Princeton, N.J., 2001). But even outside of such critiques, there seems to be a deep, pervasive, even ordinary ambivalence around automated personalization and its effects on life; ominous seems to be its primary temporality. I'll discuss such critiques in more detail below.

enjoyed by a privileged few. Aria Dean, Fred Moten, Christine Goding-Doty, and others working in black studies offer very different, and more promising, starting points for addressing the personalization industry, ones that have never relied on the fantasy of opposition that the personalization industry is actively eliminating as a viable mode of critical thought.

The Personalization Industry

The personal address of personalization is extruded from a massive, seemingly impersonal database or population. That process is usually marketed, when it's marketed, as personalization, but is also sometimes referred to in professional contexts as research into recommender systems or recommendation engines. All of which research tends to get organized discursively, if not in all org charts, as a subspecies of artificial intelligence (AI) research. We find recommender systems in search engines, in dating sites, in shopping, in social media feeds like Facebook's, in streaming music services, and, increasingly, at every point of networked interaction. In fact, unless one tries to turn off these personalization engines, which isn't always possible, it's now often harder to find a nonpersonalized environment online.

What both generates and organizes the data that drives the personalization industry is often distilled into two things that are distinct but interrelated: preferences and likeness (see *PV*). From the point of view of the algorithms that generate personalized results in whatever context, we prefer things sometimes explicitly by giving them ratings and sometimes implicitly by clicking on them (whatever the actual motivation for the click). It is not such an exaggeration to say that networked personhood is a personhood of preference: all sovereignty, all agency encapsulated as a series of actions to be interpreted flatly as a preference for one thing over another. Individual preferences are gathered and accumulated and, in that accumulation, mingled. That mingling is largely driven by likeness, how alike or unalike we appear when compared with others. And likeness, in turn, is a product of preference. We are like someone when we prefer what they prefer. In the industry's jargon, this is called collaborative filtering. Collaborative here refers to the fact that the system's intelligence is derived by comparing people (seen as aggregates of preference) in a database. In the new whorls of our outsourced subjectivities, this indeed counts as collaboration, a model in which we don't choose or control all that much.

Preference isn't about identity. It's about ranking, which is why it's so useful to the personalization industry—it tends not toward identification, disidentification, or judgment but toward measurement and quantification,

which then come to inflect subsequent scenes of (dis)identification and judgment.[8] Recommendations made by sites like Amazon, Facebook, online dating sites, streaming music services, and search engines are a computer's best guess at what we might like or find valuable. In this, they are like all advertising and marketing, where personalization is one kind of solution to the problem of market oversaturation. But such recommendations are also just the kind of capitalist autocritique that is so well documented in Luc Boltanski and Eve Chiapello's *The New Spirit of Capitalism* (2005) and elsewhere.[9] Personalization, in this sense, is a kind of rejoinder; if mass markets pedaled a kind of false individuality, a feeling of being personally addressed by the products that one knew were being marketed at the same time to any number of others, then Web 2.0's technologies will provide *genuine* individuation. More than just a feeling, the promise of personalization is that our search engines might come to learn enough about us that they will return to us perfect and perfectly tailored answers every time, no matter how idiosyncratic the request. Disidentification will no longer be necessary as a way of maintaining individuality in a scene of falsely personalized address. This is where research into recommender systems dovetails with machine learning or AI research.[10] The products of today's commodity market become intelligent not in order to become more rational or faster, as in the supercomputer that always wins at chess, but in order to become more personal. They learn about us continuously, ceaselessly (which is more than some of us can say about our human relationships). That's the appeal anyway, when there is an appeal, although companies now often go to great lengths to conceal, obfuscate, or make extremely tacit the evidence of their personalization technologies. There's a fine line between computer learning and mass surveillance—no line in fact, so the distinction has to be carefully manufactured and managed *as* a feeling.[11]

8. For more on liking as an affective and aesthetic relation, see Jonathan Flatley, "Like: Collecting and Collectivity," *October* 132 (Spring 2010): 71–98. On disidentification, see José Esteban Muñoz, *Disidentifications: Queers of Color and the Performance of Politics* (Minneapolis, 1999).

9. See Luc Boltanski and Eve Chiapello, *The New Spirit of Capitalism*, trans. Gregory Elliott (New York, 2005).

10. See Lev Grossman, "How Computers Know What We Want—Before We Do," *Time*, 27 May 2010, www.time.com/time/magazine/article/0,9171,1992403,00.html, and Gediminas Adomavicius and Alexander Tuzhilin, "Toward the Next Generation of Recommender Systems: A Survey of the State-of-the-Art and Possible Extensions," *IEEE Transactions on Knowledge and Data Engineering* 17 (June 2005): 734–49.

11. See Daniel Newman, "Digital Privacy: Brands Figuring Out Where Personalization Gets Creepy," *Forbes* (Mar. 20, 2018), www.forbes.com/sites/danielnewman/2018/03/20/digital-privacy-brands-figuring-out-where-personalization-gets-creepy/#73f4473d43a7. Or see any of the numerous articles online that combine *personalization* and *creepy* in the title.

Television too is transforming according to these logics. "Netflix has the ability to track what people watch, at what time of day, whether they watch all the way through or stop after 10 minutes. Netflix uses 'personalization' algorithms to put shows in front of its subscribers that are likely to appeal to them."[12] This, as Eve Sedgwick has taught us, is a paranoid model (although it masquerades as a reparative one).[13] The industry's data is mobilized in the interest of minimizing surprise (primarily for the entertainment industry itself): people will watch what the predictive data says they will watch; those shows will be directly related to the shows they have watched in the past. The past is hardwired to the future without the interference of the present, of contingency. The present as contingency is, in the industry's own language, disintermediated. That is what big data means to a company like Netflix; that is its promise, and so that is its value.

Google's search results are also increasingly personalized. Its claim to value lies precisely in being able to learn about its users and so produce results better suited to user needs. Personalized Search, introduced by Google in 2010, uses a log of the last 180 days of our own searches in order to tailor what can't help but count as knowledge in relation to our own particular needs (searches conducted from our IP address or our computer wherever it is located, so long as we're logged into Google—although Google can also learn about us when we're not logged in). A study from 2013 (an internet age ago) estimates that approximately one in ten Google searches is personalized.[14] Within that ten percent, by far the greatest influence on the particular form that personalization takes is the last search conducted. This carryover effect lasts approximately ten minutes, after which the effect becomes less influential on the results that our queries bring back. Behind this model lies a probabilistic and predictive understanding of attention.

What differentiates these guesses from past marketing is data. But to call the primary mechanism here data is to obfuscate an important fact: data is simply life transcoded—not all of life, not all of the complexity, of course. Although to overcome precisely that limitation is also one of the great challenges of the AI industry, into which the personalization industry

12. Joe Nocera, "Can Netflix Survive in the New World It Created?" *New York Times*, 15 June 2016, www.nytimes.com/2016/06/19/magazine/can-netflix-survive-in-the-new-world-it-created.html

13. See Eve Kosofsky Sedgwick, "Paranoid Reading, Reparative Reading, or, You're So Paranoid, You Probably Think This Essay Is about You," in *Touching Feeling: Affect, Pedagogy, Performativity* (Durham, N.C., 2003), pp. 123–53.

14. See Anikó Hannák et al., "Measuring Personalization of Web Search," in *Proceedings of the 22nd International Conference on World Wide Web* (New York, 2013), pp. 527–38, and Justin, "A Better Understanding of Personalized Search," *Briggsby*, 24 June 2013, www.briggsby.com/better-understanding-personalized-search/

is subsumed. So it's not as if calls to embrace and make worlds for complexity and diversity sit antagonistically outside of the aspirations of the personalization industry itself.

The main line of critique against such systems, so far, has been the one most fleshed out by Eli Pariser.[15] Pariser says that the personalized web is making our worlds smaller, increasing the exclusivity of our own personal clans, exposing us to an even less diverse set of opinions than we dieted on before. It is, in essence, a Frankfurt School argument about homogenization. An argument that in so many contexts, lately, has been all too easy to make, reinforced every night by the marketing strategies of the nightly news, and one that might be right—although I don't really think we know or have a way of measuring how much smaller people's worlds get. Pariser is certainly right that personalization disguises one of today's key processes for substituting a narrower world for the world tout court. But in this, the personalization of Web 2.0 may simply be a subset of a larger and longer recommender system that has gone by many names: race, gender, sex, sexuality, ethnicity, class, ability—the original filter bubbles.

But my interest isn't to claim that Pariser's argument is wrong—as I say, how would we know? There is, in fact, emerging counterevidence that people's information worlds are getting larger and more diverse, but this might signal not that the poles of the debate should revolve around scale but that the debate needs to gather around a different metric.[16] What I question is the premise of an argument like Pariser's: namely, that there's a rich world of comparison and opposition available somewhere (in the past, for instance). And while that's a common enough fantasy in the reception of new media, what I distrust in this particular context is the way it relies on oppositionality as a mode of thinking (then/now, diverse/undiverse, bubble/whatever is not lived as though in a bubble). One of the more recondite and recalcitrant problems of personalization is that it erodes the possibility that oppositional structures of thinking could impact that which they oppose. Another way to say this—which indexes it to a longer history of critique discussed below—is that the personalization industry eliminates the fantasy of the literal and its reliance on oppositionality as a critical posture. This throws into relief the ways that that fantasy has always relied on a racialized and racializing humanist tradition. Wilson's *ScanOps* outlines the

15. See Pariser, *The Filter Bubble*.

16. See Richard Fletcher and Rasmus Kleis Nielsen, "Using Social Media Appears to Diversify Your News Diet, Not Narrow It," *Nieman Lab*, 21 June 2017, www.niemanlab.org/2017/06/using-social-media-appears-to-diversify-your-news-diet-not-narrow-it/

key contours of this problem, not by thematizing them, but by being itself riven by them.

ScanOps

The photographic scans in Wilson's *ScanOps* are found in Google Books's vast archives. They are, in the context of those archives, "mistakes," images of the process of scanning books that were inadvertently left in the scanned books themselves. Wilson calls them "anomalies."[17] He has collected these anomalies for years by searching within Google Books or by using other people's discoveries of the same sorts of images. Some show a page that has been moved during the scanning process; its words blurred into lines that trace the force and direction of movement. Many show fingers, sheathed in pink latex, holding down the pages of books that are being scanned. If the world is increasingly digital—more and more inextricable from digital technologies and their ecology of compatible products—then Wilson's *ScanOps* shows us *how* the world is being rendered, in parallel, as data. Specifically, it presents outtakes from the massive scanning effort that, in the language of Google's own internal divisions, is called ScanOps.

Wilson's *ScanOps* photos are, in this sense, self-portraits where the self in question is not the workers themselves but the entire process of creating the monetizable entity known as Google Books—an entity into which those workers are subsumed and in which they are normally hidden.[18] In *ScanOps: The Inland Printer–164* (fig. 4), the image is centered not on the book, the resource that Google extracts and digitizes, but on a human hand extending a finger to hold down the edge of the book—a black hand, its blackness set off by the contrasting white of the sleeve, the pink of the finger condom, and the white of the page that the finger pins down. Racial blackness is part of what appears to be *exposed* if we take this photograph to be a form of documentary realism. The framing of the image, centering the hand and decentering the book, indexes this logic of exposure. Pulled back from the yellowed page that is the immediate object of the scan, the photo draws into the frame the black hand of the laborer whose labor is precisely to be invisible. This view of *ScanOps* has anchored most of the

17. Andrew Norman Wilson, "Andrew Norman Wilson with Laurel Ptak: ScanOps," interview by Laurel Ptak, *Aperture*, 2013, www.aperture.org/magazine-2013/andrew-norman-wilson-with-laurel-ptak-scanops/; hereafter abbreviated "SO."

18. The Electronic Frontier Foundation class action lawsuit against Google Books details some of the mechanisms through which monetization would occur. See "Authors Guild v. Google, Part I: Proposed Class Action Settlement," *Electronic Frontier Foundation*, 1 July 2011, www.eff.org/cases/authors-guild-v-google

FIGURE 4. *The Inland Printer–164* (2012), inkjet print on rag paper, painted frame, aluminum composite material. Courtesy Andrew Norman Wilson.

critical attempts to account for the work (see "SO").[19] If anyone thought that resources like Google Books were smoothly automated or corporations like Google were colorblind in their hiring practices, *ScanOps* would disabuse us of this ignorance.

To make the series, Wilson finds a scan within the vast Google Books archive: he prints it; color matches one element in the image using Home Depot's paint matching technology (in figure 4, this element is the rubber finger sheath); produces paint in that color and employs an auto body shop to apply the paint to a frame. Color matching of a different sort characterizes the blue background, which is chosen by Google precisely for the ease with which it can be removed from the image in the final scan, should any part of it mistakenly get into the book scan. It is a blue-screen technology, making use of a color keyed to the technology of its own erasure, much like the racial blackness of the ScanOps workers themselves, seen in the context of the Google employee pool.

In *ScanOps: The Jungle–Frontmatter*, the human finger again plays its paperweight role (fig. 5). Here it appears not in the flesh but in a flesh papered over by the automated process whereby flesh is masked in order to be rendered immaterial. Retaining the basic shape of a fingertip pressing down on the corner of a page to be scanned, the finger here is blue, flattened, transformed into something that now resembles—is made to resemble—paper: the same blue, the same value and flatness as the background against which the finger would otherwise appear as foreground. We are thus seeing both the finger and the process by which the finger is discarded as noise in order to produce data: factored in, algorithmically subsumed into its environment, then superseded by the data that it is that once-fleshy finger's job to stabilize and prioritize in the first place. The color matching between image and frame highlights the yellow of the slip of paper to be scanned—the resource that will become data, then public, then part of a massive claim made by Google to be archiving all of the world's knowledge, even that yellow slip and whatever is contained on it, which the cropping of the image, found in situ as are all of Wilson's images, tellingly excludes.

19. See Olivia Solon, "Artist Reveals Disembodied Workers Scanning Books for Google," *Wired*, 17 Jan. 2014, www.wired.co.uk/article/ScanOps; Shawn Wen, "The Ladies Vanish," *The New Inquiry*, 11 Nov. 2014, thenewinquiry.com/essays/the-ladies-vanish/; Nick Irvin, "Corporate Aesthetics: Andrew Norman Wilson" *Art in America*, 21 May 2014, www.artinamericamagazine.com/news-features/interviews/corporate-identity-an-interview-with-andrew-norman-wilson; and Ionit Behar, "Artist Profile: Andrew Norman Wilson Therapizes the Corporate World," *ArtSlant*, 14 Apr. 2015, www.artslant.com/sf/articles/show/42733

FIGURE 5. *The Jungle–Frontmatter* (2014), inkjet print on rag paper, painted frame, aluminum composite material. Courtesy Andrew Norman Wilson.

In these senses, *ScanOps* participates in a common modernist tactic that often has had recourse to some notion of the literal, which is to say, of aesthetic mediation that posits a split in the world in order to reveal the fact of the split itself. Wilson reveals to us, in this aesthetic register, the literal bodies of the workers whose fingers support the process by which a book becomes digital. Paper resists scanning, however feebly—time makes it susceptible to fragility and decay; use unaccommodates paper to scanning beds. A type of labor, which we can't call simply human, needs to be invented to ease the transit of such books, made noisy by age, into data. The paperweights of the digital age, it turns out, need to have the suppleness of human fingers and the pliability of at-risk populations who, Google can assume, won't agitate for better working conditions. Wilson's scans, which are Google's own scans (not rephotographed as in Sherrie Levine's *Untitled [After Edward Weston, 1925]*, her photograph of an Edward Weston original)[20] give us these bodies in all the literalness of their embodiment. Against the background of the tech industry's defensive postracialism, enabled by a magical realist belief in meritocracy, the ScanOps workers' race and class is made to appear, literally, as that which most scandalously countervails the clean, posthierarchical image of a massive company like Google, which as of 2016 was 2 percent black and 3 percent Hispanic.[21] By doing so, Wilson's appropriated images allow us to see beyond the façade of the meritocratic claim, through to the fact of racial segregation and exploitation within Google. This has always been a powerful representational tactic. Documentary photography likewise asserts a jarring literalism against the various ways the world would prefer to present itself. This is why Wilson says this project is indebted to the famous documentary journalists of the past: Jacob Riis, Dorothea Lange, Lewis Hine—the great photographers of labor and exposure (see "SO").

But in an important sense, Wilson's images also reveal the end of such tactics. What Wilson gives us is not a document of a realm to which the technology of the camera gives us access while the fleshy recalcitrance of our bodies and our ordinary ways of knowing would deny that access. Rather, what he gives us is an artifact from that seemingly alienated and distant realm, an artifact whose job is precisely to erase and not just obscure distinctions such as the one between flesh and technology or the accessible

20. See Douglas Crimp, "Pictures," *October* 8 (Spring 1979): 75–88 and "The Boys in My Bedroom," in *Melancholia and Moralism: Essays on AIDS and Queer Politics* (Cambridge, Mass., 2002), pp. 151–64.

21. See Lisa Eadicicco, "Google's Diversity Efforts Still Have a Long Way to Go," *Time*, 1 July 2016, www.time.com/4391031/google-diversity-statistics-2016/. See also Lisa Nakamura, *Digitizing Race: Visual Cultures of the Internet* (Minneapolis, 2008).

and the obscure. What *ScanOps* gives us, in other words, is not images *of* that space; these images *are* that space; they are of it and in it. The images in *ScanOps* each present what Wilson calls "anomalies." But they don't just depict those anomalies; they *are* the anomalies themselves. Viewed in these registers, as we'll soon be in a position to see more clearly, Wilson's *ScanOps* shows us the waning of the various realms once thought to resist the merely, dumbly literal—allegory, ideology critique, aesthetics, even the humanities themselves—and gives us instead a picture of the world in the process of self-actualization, where the self in question is significantly outsourced. Meaning these are not really pictures at all, ported from some other realm into this one, but part of the self-actualizing circuitry being continually refined by the personalization industry. Wilson shows this process to be taking place in the realm of data or epistemology: of how we know things and of what there is to know. The personalization industry implements this process in the intimately-related realm of selfhood, making selfhood a kind of extrusion from data collectivities sorted by preference, affinity, and likeness.

The fact that such images can be later printed by an artist, framed, hung, and exhibited is not evidence that we, now, here, in our encounter with the image, are residing far from those circuits, with Wilson's aesthetic intervention allowing us a vantage across the mediating gap. It is evidence that those circuits extend as far as our encounters with them, right up to here. What Wilson gives us is an extension not an extraction. Personalization, as a modulation process, brooks no gaps. The frame that "color-adjusts" to the interior of the image makes this feature of the work indelible, unavoidable. This frame does not frame; it sutures, stitches, bridges, modulating between what would be an interior and its exterior. In Stanley Cavell's telling, the photographic frame ordinarily cuts out the world.[22] Wilson's frame cuts it in and so isn't a frame in that sense. Finger, book, scanner, data; image, frame, encounter, data—all minimally differentiated and maximally knit into the scenes in which one would encounter those chains of relation.[23]

In other words, encountering these images requires a twinned mode of looking. The two modes at first *seem* antithetical. But what's really happening is that the second mode is consuming and eradicating the first. The first is a modernist model that relies on revelation. Wilson's revelation leads almost inevitably to thoughts about labor, about the invisibility of the

22. See Stanley Cavell, *The World Viewed: Reflections on the Ontology of Film* (Cambridge, Mass., 1979). In Jonathan Culler's telling, the frame folds the world: see Jonathan D. Culler, *The Pursuit of Signs: Semiotics, Literature, Deconstruction* (Ithaca, N.Y., 1981).

23. If this feels like a hollow or superficial use of color that is perhaps unequal to the task of pushing us into another mode of critical encounter, I would say that that feeling indexes *ScanOps's* own ambivalence about its relationship to literalist criticism.

marginalized labor of black and brown bodies, about the harsh and segregated and largely hidden racialized working conditions under which so many products are made in the tech economy. But this needs to be twinned to a mode in which what the series gives is not just a revelation of a prior (if ongoing) reality, an uncovering of the world as it really is, but a process that produces the world processually and predictively. What I mean is that the workers whose body parts *ScanOps* accidentally fails to mask are themselves part of a present and ongoing process in which their labor produces a massive scanned database of books. And that database is itself the condition of possibility for all sorts of things happening, all sorts of new forms of monetization and speculation. My vocabulary gets imprecise here because my point is that we can't really know what will come of such processes—they're speculative and ongoing. Database production, including scanning machines and their human servants, produces the conditions under which that speculation spools out into a future.

Let me predict a possible point of confusion before I return to the question of personalization. I look to *ScanOps* not because it in any very legible sense pictures the personalization process or the experience of being addressed by it—although it does picture some of the conditions under and in which personalization becomes possible, including the fantasy that the web's bounties (that is, every book ever written) are fully and totally available *just for us*, for each of us individually, a fantasy that the bodies of the ScanOps workers intrude upon and thereby highlight. But what Wilson's *ScanOps* really helps us do is develop a mode of thinking that starts to be able to track some of what personalization accomplishes, its effects in the world. By invoking Google, one of the great research and development labs for the financial and technical equipment that make personalization possible, Wilson's work will, in the context of this essay, inevitably provoke a desire to see Google become exemplary. And that would impose upon Wilson's project the requirement that it address, in some overt sense, the personalization industry. I do not think Wilson's work does that. Nor do I think *ScanOps* is about how it feels to live inside the personalization industry. I think, at the level of its manifest content, it's about very different things. As I've suggested, these would have to be labor, race, class, ideology, and economy. The desire of the project seems to be to provoke awareness of, if not knowledge about, these themes as they apply to and inhere within Google's own specific organization of labor and, by extension, within any similar project of the tech industry.

But if the kind of computational economies that are the inevitable context for Wilson's work and for my discussion of it do anything, they must alter, if they don't fundamentally rewire, the very nature of exemplification.

That is part of the reason why many have argued that networked life is significantly unrepresentable or nonrepresentational or, voiced in a different register, affective (see *PV*).[24] If we can accept that so much about networked life is encoded, encrypted, digital, too fast, or too materially recondite to be available to our usual sensory and conceptual apparatuses, then we might start to doubt that a process such as personalization would, as its primary or only mode of expression, simply show up in the explicit referential matrix of some artwork. Cases like personalization should make us doubt that exemplification could work so seamlessly, where themes would be simply and easily available to our most familiar modes of sensing.[25] Rather than viewing Wilson's project as exemplary of its milieu, where it incorporates some features of that milieu in order to reflect them back at us representationally, I have tried to discern the significantly different mode of thought and sensing that Wilson's work demands of us—or to put it slightly differently, I have tried to describe what occurs in and in the wake of the encounter with a personalized address. It is in this mode of thought, rather than in a set of overt references, that I have found *ScanOps* to model one of the important effects of personalization, while also hinting at new modalities of exemplification that need to come into being for cases that circuit through computational realms.

Literalist Criticism

If one of the key effects of data-driven personalization is to eliminate structures of opposition and the critical procedures that rely on such structures, then the modernist critical tradition it most disturbs is that which has ceaselessly pivoted around the literal. The literal has been one of modernism's great and persistent tactics for producing, and for just barely sustaining, the promise of oppositional thinking and aesthetics. To invoke the literal, either in enmity to it or in optimism about its flatness, simply *is* to invoke an opposed other—an antithetical pole against which the literal exerts its force.[26] Personalization, in making everything into input, undermines and begins to eliminate the role that such oppositional structures

24. See, for example, Alexander R. Galloway, *The Interface Effect* (Malden, Mass., 2012) and "Laruelle: Against the Digital," *Posthumanities* 31 (Minneapolis, 2014). For arguments that align more with the nonrepresentational and the affective rather than the unrepresentable, see Patrick Jagoda, *Network Aesthetics* (Chicago, 2016); Cohen, *Never Alone, Except for Now*; and Chun, *Updating to Remain the Same: Habitual New Media* (Cambridge, Mass., 2016).

25. For more on theories of the case and of exemplification, see Lauren Berlant, "On the Case: Making the Case," *Critical Inquiry* 33 (Summer 2007): 663–72 and "Introduction: What Does It Matter Who One Is?" *Critical Inquiry* 34 (Autumn 2007): 1–4.

26. See, for example, Cummings, "Literally Speaking, or, the Literal Sense from Augustine to Lacan."

play in the construction of social, and thus of political, registers of being. As I've suggested, *ScanOps* straddles the line between the active period of this tradition and its elimination by the personalization industry, seemingly ambivalent about its own place in relation to that tradition.

The obvious case here is the debate around conceptualism and minimalism in the United States' art world around 1968. In that scene, as in others, literalness is about flattening. The literal is indistinct, ungalvanizing, unpolarizing, not thrilling—and that's either good or bad, desired or not, depending on the art practice one wants to champion or resist. For Michael Fried, with reference to American minimalism in the sixties, literalism was of course the undesired state, and theatricality was its mode of subjectivity (see "AO"). For the conceptualists and minimalists whose work he satirized as literalist, a more flattened aesthetics was precisely their ambition. But the valences of the literal as part of a critical tradition exceed Fried's branding of the *literal* as a term of derision.

Roy DeCarava helps make the point: "A turning point [writes Alan Thomas] came in 1956 when he photographed a narrow, softly lit hallway in an impoverished Harlem tenement: 'It was one of my first photographs to break through a kind of literalness.'" DeCarava himself continues:

> "The literalness is still there, but I found something else that was strong and linked it up with a certain psychological aspect of my own. . . . The important thing is what it evokes in me in terms of my past and present. I can now see things of beauty within the body of its ugliness. Both because of and in spite of its contradictions, its origins and what they mean, it is still a beautiful image."[27]

Literalness is here something to break through. It's an obstacle, on the other side of which sits a qualified beauty and on the near side of which sit representations of objects in themselves, unpsychologized, untranscended, stuck in the present tense—flat. The desire on the part of both detractors and supporters that the literal remain cordoned off from other aesthetic possibilities makes it clear that the literal occupies an anxious proximity, where categorical instability amps up the desire for clear delineation while at the same time providing another instance where the threat of indistinction arises forcefully, unavoidably. Fried's "Art and Objecthood" assumes this proximity, precisely in order to make a show of resisting it (see "AO"). So does Robert Smithson's "Letter to the Editor," a response to Fried's essay: "Every war is battle with reflections. What Michael Fried attacks is what he

27. Alan Thomas, "Literary Snapshots of the Sho-Nuff Blues," *In These Times*, 27 Mar.–2 Apr. 1985, p. 20, www.unz.org/Pub/InTheseTimes-1985mar27-00020

is. . . . Could there be a double Michael Fried—the atemporal Fried and the temporal Fried?"[28] Smithson responds by commenting on the structure of the opposition itself, as did DeCarava. The literal can only be instantiated in the gap between an image and its distorted reflection.

If the literal for Fried is a synonym for the temporal, the literal is used by DeCarava as a synonym for the representational. While DeCarava breaks through literalness (and thus away from "mere" representation), others (the artists that Fried famously vilified) were breaking through *to* the literal. It was the literal to which conceptualists and minimalists turned when they wanted to break with canonical accounts of artistic tradition. In appearing to be that which it is and no more, the conceptualist object tries to obstruct, and so call attention to, the antiliteralist alchemy of art world exchange value and the cultures that alchemy makes possible. For Sol LeWitt: "There are many elements involved in a work of art. The most important are the most obvious."[29] The conceptualist object will strive not to become an artwork even while its continued existence and polemical project relies on it being accepted, on the very basis of this refusal, as an artwork. This is the familiar modernist melancholia but turned around, where the literal is embraced in order to defuse a modernist idealism (instead of that modernist idealism struggling to both embody and overcome its constitutive literalism).

Many accounts of canonical modernism can't exist without a notion, embedded or explicit, of the literal. The literal is "concrete sensation, immediate return, tangible datum," as Greenberg once said, melancholically, in reference to "deranged," arch-modernist painters Vincent Van Gogh, Paul Cézanne, and Jean-Jacques Rousseau.[30] The literal is simply there, unmediated. Being so, for committed modernists like Greenberg and Fried, but also for very differently situated art critics such as Rosalind Krauss, the literal is an ambivalent thing. Radically there, as in the daub of paint that refuses to stop being just and only that. But also, instrumentally there, as in the literalism of commodity capitalism that Greenberg, Fried, Krauss, and just about every other modernist decried in their own ways—all work no play. The standard modernist recuperation, heroic and melancholic at once, then declares modernism's homeopathy: the literal, by sharing in

28. Robert Smithson, "Letter to the Editor," *Artforum* 6 (Oct. 1967): 4.

29. Sol LeWitt, "Sentences on Conceptual Art," in *Conceptual Art: A Critical Anthology*, ed. Alexander Alberro and Blake Stimson (Cambridge, Mass., 1999), p. 107.

30. See Clement Greenberg, "Henri Rousseau and Modern Art," in *Arrogant Purpose, 1945–1949*, vol. 2 of *The Collected Essays and Criticism*, ed. John O'Brian (Chicago, 1986), pp. 93–95.

modernity's plight, gives us back modernity, but starker, more legibly, more horribly, more intolerably.

If the literal is modernism's great goad, it is postmodernism's great symptom. "The waning of affect" that Fredric Jameson identified as *the* postmodernist symptom implies that subjectivity itself has become literalized.[31] No longer defined by an existential search for meaning, which was predicated on a depth model of the subject, subjectivity becomes something flat, a personality comprised of shallow gestures that is doomed to remain only and always just what it is, resisting all metaphoricity, anything layered or dimensional, any nonapparent or existential meaning, anything that would warrant and reward the accumulated resources of modernist hermeneutic thought or personal introspection. And this moment of literalism, like the modernist one before it, also implicates its subjects in an inflated form of subjectivity. Jameson emphasizes a waning, but the waning of existential depth brings with it the inflated sovereignty of a newly trans- (because a-) historical purview that operates through freeform pastiche. And so the literal spans what might otherwise appear as the break between modernism and postmodernism. What remains constant is the literal's oppositional structure, the way it props up the oppositional ontology of meaning-making itself. The literal encodes a certain fantasy (or nightmare) of escape: from communication, from mediation, from other people. The literal is therefore always, and maybe most of all, a wish for the endurance of this structure of opposition, for the possibility that the world, no matter how totalized, how homogenous, could eventually be transformed through a series of reversals, negations, or antitheses.

Pariser, Sunstein, and other critics of personalization rely on this fantasy—precisely the fantasy that the personalization industry erodes. It does so not by making people stop having faith in opposition as a mode of critical thought but by allowing, even encouraging, that faith, a faith people can gather around in optimism or critical pessimism, even while personalization builds parallel forms of collectivity that turn all action, all stances, no matter how oppositional, into predictive data built from preferences, affinities, likeness.[32] I can get at this thought another way, which begins

31. Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham, N.C., 1992), p. 10. In a recent interview, Jameson has said that the phrase, understood now through the intervening literature on affect, should properly have been "the waning of emotions" (Jameson, "Revisiting Postmodernism: An Interview with Fredric Jameson," interview by Nico Baumbach et al., *Social Text* 127 [June 2016]: 152).

32. There are many people working on related problems right now. I can think of four broad vocabularies for the problem that I've been addressing throughout. The first revolves around cybernetics; see Franklin, *Control*. The second vocabulary situates the problem of input, feedback, or capture as it exists in the history of capitalism; see Boltanski and Chiapello,

by pointing out that there is a scale problem in what I've presented above. I've referred to my case as the personalization industry, and I do believe that such a thing exists with something like the coordination, scope, ambition, and monumentality suggested by the otherwise anachronistic word *industry*. But does that imply that the book recommended by Amazon is just as significant as the role that Cambridge Analytica played in the 2016 US election?[33] One is widely understood to represent a threat to democracy. The other is just one more barely noticeable thing that happens in a data-driven milieu that designs a seemingly open platform for social interaction and ordinary commercial activity on top of a structure of data extraction—ambivalence as usual. The differences between a book recommendation and a national election are real enough, but the mechanisms that produce these scenes of personalization are *precisely* the same. One involves an individually tailored book recommendation; the other an individually tailored political message: all just so much personalization, the world processed and perpetually regenerated through the engine of collectivized preference. One of the most pressing critical problems here is what to do about this scale problem (and all network problems have similar scale problems—a network being a thing that obliterates not scale but the ways one orients oneself to scale).[34] Decades of literalist criticism have instructed us to produce a mode of thought opposed to this problem and its constituent parts, inoculated from it by calling into being a literal outside that either opposes its particular mode of transcendence or transcends its particular mode of literalness. *ScanOps* clearly works in this mode.

But *ScanOps* also betrays a worry that that tactic is not enough anymore. Recall Smithson: "Every war is a battle with reflections. What Michael Fried attacks is what he is." Google is not fighting a war in this sense. They and others who have invested in the personalization industry are building a

The New Spirit of Capitalism. The third works in the idiom of neoliberalism, a kind of fusion of the first two literatures in that quantification is here brought to the relationship between capitalism and personhood; see Wendy Brown, *Undoing the Demos: Neoliberalism's Stealth Revolution* (Cambridge, Mass., 2015). The fourth hails from film studies: see, for instance, Shane Denson, *Postnaturalism: Frankenstein, Film, and the Anthropotechnical Interface* (Bielefeld, 2014). For more on the temporality of computational media like those that drive the personalization industry, see Brian Massumi, *Ontopower: War, Powers, and the State of Perception* (Durham, N.C., 2015).

33. As I finish this essay, the news story is evolving. Although Cambridge Analytica's role has been known for some time, Facebook's role is just now coming to light. See Matthew Rosenberg et al., "How Trump Consultants Exploited the Facebook Data of Millions," *New York Times*, 17 Mar. 2018, www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html

34. For a prehistory of this scale problem, see Rebecca Solnit, *A River of Shadows: Eadweard Muybridge and the Technological Wild West* (New York, 2003).

vast machine for converting every reflection, every oppositional vector (of thought, action, posture, image—anything that leaves a data trace) into a curve that bends right back to that very machine, a new input for a more personalized output. The fact that black and brown bodies appear in the scans that ScanOps workers are paid not enough to produce, the fact that their bodies register despite all of the secondary machinery designed to remove their presence, is a not-allegorical-enough story about how criticism might need to invent ways to orient itself not around opposition but around input and agglomeration, or what Aria Dean calls transversality and travesty.[35]

The Person Form of Personalization

Far from a focused, individualizing vector, personalization names a scattering of the personal across categories, across bulwarks—its double life as productivity machine *and* whatever mental apparatuses we have left to survive that machine. Its slogan could be *the political is personal*. The spread of personalization technologies and the ubiquity of personalized address could produce the feeling that we are witnessing the live slow-motion collapse of categories inside of which people are still desperately trying to live: the digital and the analog; online and offline; virtual and real; the human and the inhuman. The desire to hold the line seems reasonable in this regard. Probably we should be striving *not* to think like computers and to resuscitate oppositional thinking of all kinds. Except so many of the attempts *not* to think like computers have relied on literalist criticism, which reliance has in turn relied on some troubled, if recondite, forms of racialized humanism.

ScanOps marks out race as one of the categories that might seem to be collapsing in the so-called postracial world of the internet and does so by warning us not to believe in that collapse. The personalization industry strives to be postracial in its self-promotional materials and hiring practices while at the same time resuscitating race—which is to say, ways of dividing populations to better harness those populations—through computational procedures. The bodies that fugitively haunt *ScanOps* bear all the marks of this twinned strategy of racialization. On the one hand, the scans discover race lurking behind the postracial face of a company like Google. On the other hand, in works like *ScanOps: The Jungle–Frontmatter* and *ScanOps: The ABC of Photography–2* (fig. 6), where bodies and their appendages appear

35. See Aria Dean, "Notes on Blacceleration," *E-Flux* 87 (Dec. 2017); www.e-flux.com/journal/87/169402/notes-on-blacceleration/

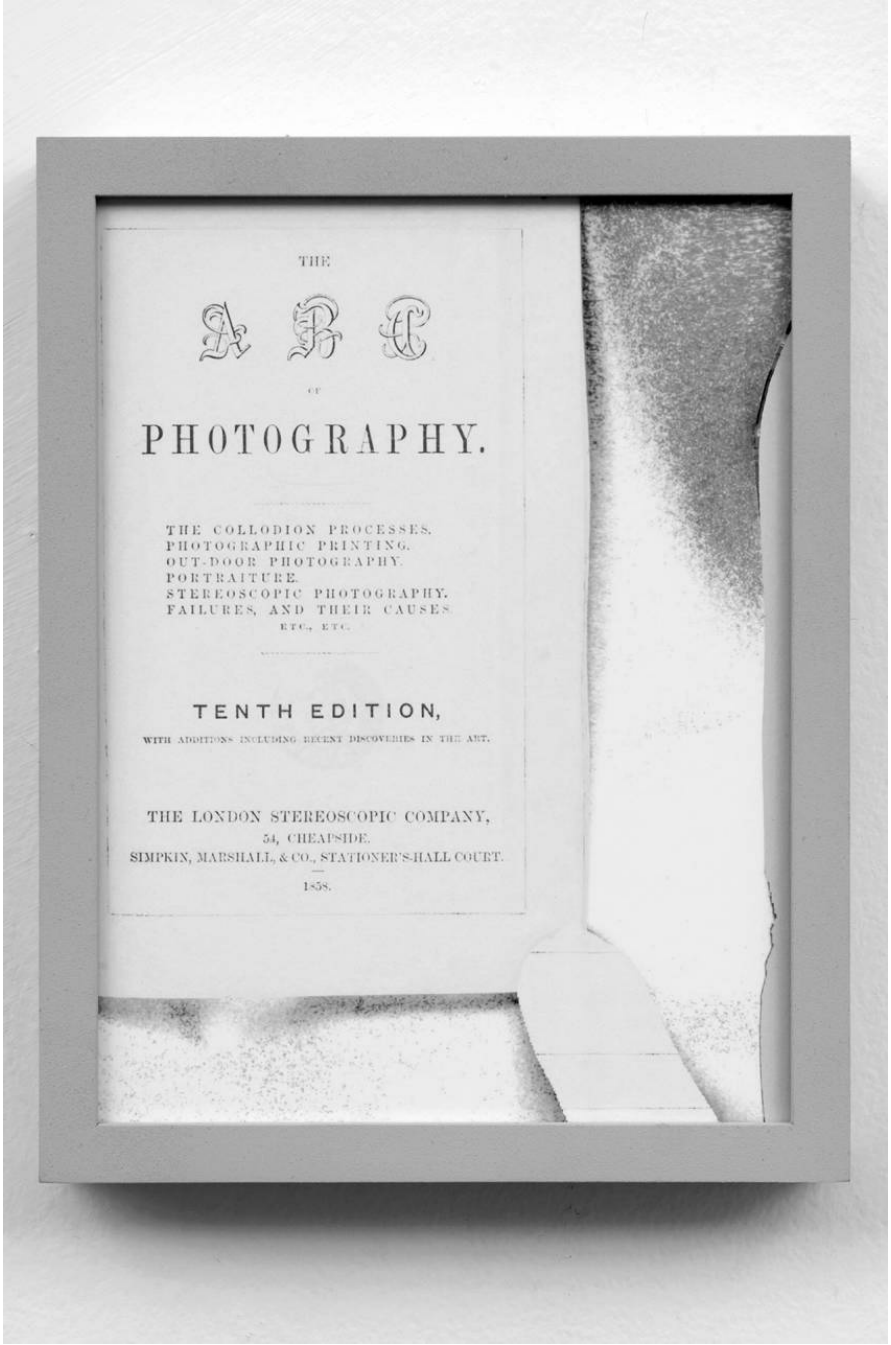

FIGURE 6. *The ABC of Photography–2* (2014), inkjet print on rag paper, painted frame, aluminum composite material. Courtesy Andrew Norman Wilson.

in the process of being erased, we witness the universalizing machine of networked technologies, treating bodies as mere shapes in order to reshape them into various processes of digital extraction. In either sense, race as it's been known and lived could come to seem antiquated.

But race can only be antiquated if we also see race as persistently originary—if we make of origin and end an antithesis. But there can be no true origin where the temporalities of beginning and end are made to complete a circuit.[36] Moten calls this temporality "anoriginal."[37] Dean also refuses to think about race through the temporalities of opposition. In Dean's "Notes on Blacceleration," where she experiments with what it would mean to take black humanity as our default model for the human caught up in computational circuits, Dean offers a very different starting point for addressing the effects of the personalization processes that I've been describing. Scavenging within the sorted history of accelerationist thought, Dean salvages a form of subjectivity that does *not* prop itself up on the old humanist fantasy that it exists outside whatever form of capitalist capture is endemic to its age, including most recently that perpetuated by the personalization industry—a form of subjectivity that does not, in other words, survive on the fantasy that it is somehow constitutively foreign to those circuits. A properly humanist subject can even understand its own occasional complicity with those circuits, its subsumption as capital, as evidence that it never really belonged there in the first place (to be subsumed, to be alienated, one needs to have been granted a prior humanity). That is why humanism in this context is synonymous with whiteness. But Dean imagines another way to think about the person form of personalization:

> Most directly, the black interrupts and prevents the establishment of a human/capital binary on which left and right might take sides. The black is always already mutually co-constituting capital and subjecthood simultaneously. . . . To speak of transversing or travesty-ing humanism in favor of inhuman capital without recognizing the way in which the black is nothing other than the historical inevitability of this transgression—and has been for some time—circularly reinforces the white humanism these thinkers seek to disavow.[38]

36. For this way of thinking about race's temporalities, I'm indebted to Christine Goding-Doty, *Meme Magic and the Tactics of Whiteness*, unpublished seminar, lecture given 1 Apr. 2018.

37. Fred Moten, *In the Break: The Aesthetics of the Black Radical Tradition* (Minneapolis, 2003), p. 28.

38. Dean, "Notes on Blacceleration."

In Dean's unframing, the fingertips captured in Wilson's appropriated photos wouldn't encode a human residue. They wouldn't register within the vastness of Google's inhuman machinery in order to announce the oppositional and resilient presence of the human—hidden, alienated, racialized. Those black fingers, the blackness of those figures, announce that the personalization industry does its work not by *opposing* the human with a flattened, temporally looped, literal version of itself (as Pariser and other media critics have suggested) but by extending, modulating, and even augmenting the long tradition of the inhuman form that is synonymous with capital itself and therefore with all of the imperatives driving the personalization industry. But—and herein lies the faint and therefore militant optimism of Dean's thought—if those black appendages are what get cropped out of Google Books, they are also therefore what surround it as imagined threat.[39] In other words, Dean, Moten, and others working in black studies offer a way to undo the literalism of current critical discussions of the personalization industry. They offer a way to approach the impasses as well as the exploitable features of the personalization industry without relying on a literalist, oppositional notion of personhood that was only ever accessible to a few anyway.

39. The *surround* as a way of figuring the method and object of critique comes from Stefano Harney and Moten, *The Undercommons: Fugitive Planning and Black Study* (New York, 2013).