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Jordan Sjol

DePauw University, jordansjol@depauw.edu

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A Diachronic, Scale-Flexible, Relational, Perspectival
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Specificity

Jordan Sjol

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Jordan Sjol

A Diachronic, Scale-Flexible, Relational, Perspectival Operation: In Defense of (Always-Reforming) Medium Specificity

ABSTRACT

At least since Friedrich Kittler declared fiber-optic cable the “end of media,” there has been an idea in cinema and media studies that as all media become digital, the concept of medium specificity makes less and less sense. Meanwhile, many wonder if our field is coherent, as media scholars turn their attention to such objects as dust, cities, and whales. I argue that digital convergence makes medium specificity *more* rather than less vital, though in a reformed formulation. While our far-flung objects cannot cohere our discipline, a use of medium specificity as a diachronic, scale-flexible, relational, perspectival operation can.

In 2018, in the pages of the *Journal of Cinema and Media Studies* (*JCMS*), Lucas Hilderbrand put together a quite nice and, to my mind, rather generative In Focus dossier. Hilderbrand’s “The ‘C’ and ‘M’ in SCMS” trained its sights on disciplinary organization. His introduction, “The Big Picture: On the Expansiveness of Cinema and Media Studies,” noted that cinema and media scholars have, over the last several decades, gobbled up a greater and greater number of media objects for study, registered way back in 2002 by the—somewhat contentious—addition of “and Media” to the moniker of the Society for

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Cinema Studies.¹ However, this voracious appetite might also give one indigestion. What, after all, makes John Durham Peters's study of the ocean and fire in *The Marvelous Clouds* media studies?² What makes Keller Easterling's attention to voluntary global standards regimes media studies, and what anchors the discipline's "infrastructural turn" claims to expertise about city spaces and large-scale logistical networks?³ If we cinema and media scholars study so many things in so many ways, Hilderbrand asks, "Do we still share unifying projects, sets of questions, and concerns? Would we even want to?" or are we just "occupying isolationist bubbles in our microconversations"?⁴

His contributors don't seem to think so. As Hilderbrand notes, many of them "responded to the issue of the discipline's expansion with a call to think *bigger*."⁵ Hector Amaya and Jennifer Malkowski both argued that the expansion of objects should help us get past disciplinary organization balkanized around objects of expertise; Elena Gorfinkel found the expansiveness of media studies to nuance or undermine traditional divisions within the field, such as that between those who "do theory" and those who "do history"; and Sangita Gopal, who interviewed twenty media studies scholars engaged in feminist practice, found that pretty much all of her interviewees, across academic generations, "welcomed the expansion of the field in new directions," even while calling for careful reflection and self-critique.⁶

This optimism and ambition for the field is all very well taken, and I found myself in easy agreement with most of what was said. However, in his introduction, Hilderbrand makes a comment that rankled me, a comment about medium specificity. Perhaps I feel it a bit personally. Having at least begun my academic endeavor closer to the *M* than the *C* in SCMS's remit, I found myself entering my most significant professional organization via its tacked-on portion. I've read any number of introductory cinema and media studies syllabi that relegate *and media* to the final week, once the important work on film has been done. What's more, I'll most likely land somewhere where my discipline is a supplement to, rather than the core of, my department (if, academe being what it is, I land anywhere). In that position, one tends to wonder about one's place in the grand scheme of things, to put it philosophically. What makes me a part of my scholarly community of cinema and media scholars? Why am I here?

1 Lucas Hilderbrand, "The Big Picture: On the Expansiveness of Cinema and Media Studies," *Cinema Journal* 57, no. 2 (Winter 2018): 113–116.

2 John Durham Peters, *The Marvelous Clouds: Toward a Philosophy of Elemental Media* (Chicago: University of Chicago Press, 2015).

3 Keller Easterling, *Extrastatecraft: The Power of Infrastructure Space* (London: Verso, 2014).

4 Hilderbrand, "Big Picture," 113–114. This is not exclusively a recent anxiety in *Cinema Journal's* In Focus dossiers: e.g., Joshua Neves, "New Specificities," *Cinema Journal* 52, no. 4 (Summer 2013): 147–154; Jon Lewis, "Parting Glances," *Cinema Journal* 43, no. 3 (Spring 2004): 98–101; and E. Ann Kaplan, "The State of the Field: Notes toward an Article," *Cinema Journal* 43, no. 3 (Spring 2004): 85–88.

5 Hilderbrand, "Big Picture," 116.

6 Hector Amaya, "A Discipline of Futures," *Cinema Journal* 57, no. 2 (Winter 2018): 117–121; Jennifer Malkowski, "Against Expertise: The Current Case for Breadth over Depth," *Cinema Journal* 57, no. 2 (Winter 2018): 126–131; Elena Gorfinkel, "Promiscuous Histories, Materialist Theories, Speculative Poetics," *Cinema Journal* 57, no. 2 (Winter 2018): 121–125; and Sangita Gopal, "Feminism and the Big Picture: Conversations," *Cinema Journal* 57, no. 2 (Winter 2018): 131–136.

For me, the answer has always been medium specificity. No matter what we study, we cinema and media studies (CMS) folks study it as media, in its specificity, insofar as it is what it is, as its effects, affects, and affordances follow from its particularity. Because of this, I feel the earth jiggle like pudding beneath my feet when Hilderbrand, summarizing Amaya's contribution to the In Focus dossier, throws off the below breezy aside: "Hector Amaya calls for a rethinking of the basic organizational logic of the discipline away from medium specificity—a *framework that makes less and less sense as our media converge and how we engage with them evolves*—and toward new large-scale, humanist social, political, and environmental questions that reflect changing demographic and geographic realities."⁷ Medium specificity under attack! The use of the term *medium specificity* turns out to be curious here, though. For one, Amaya does not use the term, and it does not seem to describe what he is talking about. Amaya argues that having scholars clustered around individual media such as film or radio (and thinking of those media as bounded) does not make much sense anymore. So, what he is describing is much more medium *specialization* than *specificity*. Likewise, in the same In Focus, Malkowski argues that in a time of such proliferating media, we must eschew the model of expertise (medium specialization) in favor of breadth, even joyful dilettantism, in research and teaching.⁸ Their argument, though, is *not* characterized in terms of medium specificity, since really this is not what is at stake. But Hilderbrand's comment reads as if in de-cloistering ourselves, we newer, more generalist media studies scholars also need to jettison understandings of the differences between, say, film and radio.

Of course, I am overstating to provoke, and my point in making a mountain of a molehill here is not a deep critique of Hilderbrand's aside. It is to extract the apparent common sense at the core of the comment: as our media converge, *medium specificity makes less and less sense*. Not only is my ticket to ride the CMS train torn up before my very eyes, but now I no longer understand what all us cinema and media studies scholars are doing at the same station.

What in fact undergirds Hilderbrand's aside is not Amaya's argument about disciplinary organization; it is a particular theorization of digital convergence. The convergence thesis is well known: with the advent of digital technologies, previously analog and distinct media steadily migrated onto digital substrates, so the various media forms came to look more alike than distinct.⁹ And there is a sense in which this is true, of course. If I want, now, to watch a movie or some TV or listen to the radio or show my friends photos from my last vacation, I can simply squawk at an Alexa TV, and all these experiences will be delivered via the same device from the same material substrate—electrical charges on silicon chips. Film and TV and radio and

7 Hilderbrand, "Big Picture," 116 (emphasis mine).

8 Malkowski, "Against Expertise."

9 As will be discussed momentarily, this thesis was laid out as early as 1985 by Friedrich Kittler. Perhaps the canonical articulation of digital convergence in more recent scholarship is given in Henry Jenkins's *Convergence Culture* (which won SCMS's Katherine Singer Kovács Book Award in 2007, by the by). Henry Jenkins, *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press, 2006).

books and video games are all now built of zeros and ones. But there is a stronger idea here, one that crops up over and over, that if all media are digital media, it doesn't make sense to talk about them *as separate, specific media*. As our media converge, medium specificity makes less and less sense.

This position was famously espoused by Friedrich Kittler as early as 1985 in his doctoral thesis, published in English as *Discourse Networks 1800/1900*.¹⁰ In Kittler's notional "systems network 2000," the integration of media technologies—which previously had distinct materialities and therefore ontologies—into the single medium of the digital computer makes the computer "the medium to end all media."¹¹ Kittler further developed this thesis in *Gramophone, Film, Typewriter*, writing that "[t]he general digitization of channels and information erases the difference among individual media."¹²

Kittler, who was also given to overstating to provoke, eventually softened this insistence, which I will come to later. But the apparently commonsense idea subtending Kittler's point has clearly never gone away. In his 2016 book on post-media conditions, Jihoon Kim listed it as one of the three points of agreement between two groups of very differently oriented thinkers—art critics and new media theorists—who take up post-media. They agree, Kim says, on "the demise of the modernist medium specificity, that is, the proliferation of electronic and digital technologies that has led to the dissolution of the boundaries between one art form and another, which were previously sustained by a media's unique properties."¹³ Digital technologies make medium specificity make less sense.

My point in narrowing in on Hilderbrand's aside is to undermine this common sense and to identify a different conception of how medium specificity operates. While medium specificity has always been an animating and generative concern in our field, from early-1900s film theory to the current day, the concept itself has undergone significant change. Indeed, while I offer a prescriptive account of a newer idea of medium specificity, I did not invent it: it emerged out of necessity—consolidating advances already underway in cinema studies—precisely when digital convergence presented the difficulty Kittler identified to the discipline. By contrasting the conception I advocate for with what I call the *despecification thesis*—the idea that as media converge, medium specificity makes less and less sense—I bring the new conception to light, characterize it formally (as diachronic, scale-flexible, relational, and perspectival), and argue for its superior heuristic and political potency. Medium specificity is a *more* important analytical tool on this side of the arrival of the digital, even if the digital leads us to nuance the concept.

In terms of disciplinary organization, I agree with the authors of the In Focus dossier that media specialization is not the way forward (professionalization dictates of my university-provided career counselors be damned).

10 Friedrich A. Kittler, *Discourse Networks 1800/1900*, trans. Michael Metteer with Chris Cullens (Stanford, CA: Stanford University Press, 1990).

11 Geoffrey Winthrop-Young and Michael Wutz, "Translators' Introduction: Friedrich Kittler and Media Discourse Analysis," in *Gramophone, Film, Typewriter*, by Friedrich A. Kittler (Stanford, CA: Stanford University Press, 1999), xxx.

12 Kittler, *Gramophone*, 1.

13 Jihoon Kim, *Between Film, Video, and the Digital: Hybrid Moving Images in the Post-Media Age* (New York: Bloomsbury Academic, 2016), 10.

But I take the implicit message of this quite seriously: it must be seen that it is *not* our attention to *any* particular set of objects that offers us coherence. As E. Ann Kaplan points out in the same *In Focus*, our objects are increasingly not our own. Disciplines proximate or distant continue to develop (legitimate) claims to legitimately study objects our discipline emerged to account for.¹⁴ Moreover, any taxonomy that unifies all the objects we currently study into a coherent category would tax the idea of *media* beyond its breaking point. Rather, medium specificity, understood as a manner of thinking and analysis, can cohere our diverse attentions, whether they be to analog or digital film or TV; shortwave or internet radio; infrastructural spaces or voluntary standards regimes; or even dust, salt, clouds, and whales.¹⁵

I will begin by comparing the classical notion of medium specificity from cinema studies with the conception in new media studies. This will lead me to consider how digital media remediate older media forms. Through this, I will describe the formulation of medium specificity produced through, and adequate for, our contemporary media environment. By returning briefly to Kittler, I will contrast this understanding with the idea that digital convergence spells the end of media. Furthermore, it must be noted that the stakes around medium specificity are not, so to speak, purely academic—they do not only concern disciplinary or departmental organization. Abandoning medium specificity entails forsaking crucial and long-standing modes for cinema and media studies to do political work.

MEDIUM SPECIFICITY IN FILM THEORY

The arrival of the new film medium in the late nineteenth and early twentieth centuries was heralded precisely as just that: the arrival of a new *medium*. From practitioners to theorists, the crucial questions seemed to be, how is this medium different from older media, and what can it, specifically, do? This is patently evident, for instance, with the early Soviet filmmakers. Dziga Vertov wrote his cinematic manifestos, particularly his 1922 “We,” as love letters to film technological apparatuses, especially the camera, marveling at its speed, its mobility, its modernity. The cinema he wanted was one cleansed of other media—pure cinema.¹⁶ Sergei Eisenstein found the features of the cinematic medium—particularly the temporal succession of shots; the indexical concreteness of the shot as an image of the world; the ability to juxtapose vision and audition; and the ability to speed, slow, and reverse temporality—as uniquely suited to instantiate dialectical materialism: for him film was, through its medium specificity, a form particularly well suited to philosophy.¹⁷

14 Kaplan, “State of the Field.”

15 For dust, see Jussi Parikka, *A Geology of Media* (Minneapolis: University of Minnesota Press, 2015). For salt, see Liam Cole Young, “Salt: Fragments from the History of a Medium,” *Theory, Culture & Society* 37, no. 6 (2020): 135–158. For clouds and whales, see Peters, *Marvelous Clouds*.

16 Dziga Vertov, “WE: Variant of a Manifesto,” in *Kino-Eye: The Writings of Dziga Vertov*, ed. Annette Michelson, trans. Kevin O’Brien (Berkeley: University of California Press, 1984), 7.

17 Sergei Eisenstein, “The Dramaturgy of Film Form (The Dialectical Approach to Film Form),” in *Film Theory and Criticism*, ed. Gerald Mast and Marshall Cohen (New York: Oxford University Press, 1974).

Likewise, early film theorists paid careful attention to medium specificity, especially while trying to establish cinema as the seventh art. At this time, the position was widely held that film could *not* be art since it was merely indexical, just an automatic recording of the world around it. It was *immediate*—not mediated. Rudolf Arnheim refuted this, pointing out in 1932 that film is not a direct representation identical to the phenomenological impressions we receive from the world since it is a monoscopic recording projected onto a flat plane. Quite precisely, mediation allows film to be art. Arnheim develops this idea by discussing implicit sounds in silent film. He uses an example from Josef von Sternberg's 1928 *The Docks of New York*, in which a pistol shot causes a flock of birds to suddenly take off. Because the auditory is mediated into the visual, its impact is highlighted and heightened. This likewise holds for more subtle differences between phenomenological apprehension and mediatic presentation: that which is mediated is highlighted and heightened precisely because of what is particular about the medium.¹⁸ This media-theoretical concern of film theory persisted right through its classical phase, lasting into the early 1960s.¹⁹ Much ink was spilled establishing a precept: film was unique as a medium, its specificity could be understood and expressed, and its proper use and abilities flowed in some way from this specificity.

Yet within film studies, medium specificity was not without its detractors. In the late 1980s, Dana Polan opined that film theory was too focused on film in “its specificity” and that “to be most useful, film theory should cease to exist as such.”²⁰ Likewise, Noël Carroll claimed that the history of film *theory* went astray by paying too much attention to the medium itself. Therefore, it was not only Film Theory but *Film Theory*: whatever it allowed itself to say had to bear on the “uniquely or essentially cinematic.”²¹ Beyond this, critical over-attention to the medium was taken up in artistic production. Understanding Carroll's complaint, which was quite important in the history of the discipline (for instance, our contemporary category of the moving image as a catchall object of study emerges out of Carroll's attacks on medium specificity), as well as the response, will be useful for when we come to think about digital media.²²

For Carroll, the development of Arnheim's ideas led to the “specificity thesis,” the principle that each medium has a particular area of concern it should keep to.²³ Indeed, this conception is latent in the Arnheim piece,

18 Rudolf Arnheim, *Film as Art* (Berkeley: University of California Press, 1957).

19 Brian Price, “The Latest Laocoön: Medium Specificity and the History of Film Theory,” in *The Oxford Handbook of Film and Media Studies*, ed. Robert Kolker (Oxford: Oxford University Press, 2008).

20 Dana Polan, quoted in Steven Maras and David Sutton, “Medium Specificity Revisited,” *Convergence* 6, no. 2 (2000): 98–113.

21 Noël Carroll, “Prospects for Film Theory: A Personal Assessment,” in *Engaging the Moving Image* (New Haven, CT: Yale University Press, 2003), 360.

22 This is true even though Carroll's taxonomization of moving images as requiring two-dimensionality and a detached display is also a specification and therefore properly subject of Carroll's own critique, as Jihoon Kim points out. Jihoon Kim, “Between Film, Video, and the Digital: The Art of Hybrid Moving Images, Medium Specificity, and Intermediality” (PhD diss., New York University, 2011), 7–10.

23 Noël Carroll, “The Specificity Thesis,” in *Philosophical Problems of Classical Film Theory* (Princeton, NJ: Princeton University Press, 1988).

and, as mentioned, some version of it gripped the imagination of many early film practitioners. Carroll argues this specificity thesis is composed of two sub-ideas: the excellence thesis, which states each art should do (exclusively) what it is excellent at, and the differentiation thesis, which states each art should do what differentiates it from the other arts (the argument almost interchangeably uses the terms *art* and *medium*). While for Carroll thinking through specificity does have its benefits, especially in attuning thinkers to the material properties of any given medium, he nevertheless believes the specificity thesis as a normative idea promotes bad art. Furthermore, it evinces a technological determinism he finds deeply troubling: if, to use Eisenstein as an example, there can be “a single system of methods of cinematographic expression that will cover all its elements,” flowing naturally from those elements, then the technological medium simply dictates form.²⁴

In “The Latest Laocoön: Medium Specificity and the History of Film Theory,” Brian Price takes up the arguments of Carroll and others, notably David Bordwell, who contend that a focus on medium specificity led late twentieth-century film theory astray. Price rather disagrees. As he sees it, “the history of film theory, as we know it, has been animated, and to some sense united, by questions of medium specificity.”²⁵ To substantiate this claim, he traces the careful attention paid to medium specificity through the history of film theory. From Maxim Gorky and Vachel Lindsay arguing the cinematic medium was particularly suited to creating a popular art amenable to lower-class consumption; to Hugo Münsterberg distinguishing the psychological impression of causality in cinema from that in theater; to François Truffaut, at the outset of auteur theory, conceptualizing film as an anti-literary art form; to André Bazin and Siegfried Kracauer extending the specificity of the photographic image into cinema—medium specificity has always guided film theory, helping it progress. However, Price is always careful to show that these attentions are *neither* essentialist nor deterministic. First, identifying a specificity of film does not equate to having discovered its essence, and no essence need, or should, be postulated. Second, given any feature of film’s specificity, no outcome follows automatically; specificities pattern affordances and create opportunities that can be taken up in many different ways. Indeed, Price concludes that paying attention to medium specificity “just might . . . work to dismantle totalizing structures to create an opening that allows us to think and to see differently.” Because this attention allows us “to recognize structures that work to regulate thought and desire,” we can contest that regulation, and we can capitalize on the affordances and opportunities offered by the form in any number of ways.²⁶ Rather than foreclosing possibilities, attention to medium specificity opens them. For Price, the crucial characteristic of a generative attention to medium specificity is that it be *open to change over time*—it must be diachronic. But this diachronicity is not only about changing media: changing *conceptions* of a medium are also involved in the meaning of medium specificity—medium specificity is perspectival.

24 Sergei Eisenstein, “Beyond the Shot (The cinematographic principle and the ideogram),” in Mast and Cohen, *Film Theory and Criticism*, 22.

25 Price, “Latest Laocoön,” 47.

26 Price, 73.

Both these features of Price's understanding will be important to any idea of medium specificity that can account for digital convergence.

It is also telling that this insistence on attention to medium specificity comes in defense of the theoretical prerogative. We should not doubt, nor do we lack voluminous evidence for, the idea that careful attention to medium specificity is capable of generating thought aplenty. As I demonstrate below, this attention provides a constitutive continuity between cinema studies and media studies, even while the idea of medium specificity develops. If, as Price insists, the history of cinema studies is characterized by an investigation of the medium of film, then media studies fundamentally takes up this concern, broadening it to the study of media generally.²⁷

Before turning to media studies, I would like to note two things. First, the insistence on medium specificity within cinema studies was explicitly political, as D. N. Rodowick details in *The Crisis of Political Modernism*.²⁸ In the 1970s, medium specificity was often connected to a critique of illusionism, the idea being that "Hollywood films efface the materiality of the film medium and through this transparency of form promote an identification with, and unquestioning acceptance of, the fictional world offered by the film."²⁹ This makes these films particularly capacious for smuggling ideology. Film theorists, then, such as Jean-Louis Comolli, Jean Narboni, and Peter Wollen, called for an anti-illusionistic cinema that would highlight the materiality of film as a medium to break the identificatory spell "in the assumption that foregrounding the process of signification would draw the spectator's attention to the materiality of the image through the disruption of the unity and transparency of film form."³⁰ While one would be right to hear echoes of Brecht here, this anti-illusionism is specific to the film medium, since it primarily operates through montage techniques that take advantage of "the heterogeneity of semiotic channels available to film." It is, in one way or another, at the root of the voluminous discourse within film theory that attempts to formulate a counter-cinema.³¹

I bring this up not to praise a project of what Rodowick calls "political modernism" but to demonstrate that film theory through this period was profoundly committed to thinking through the ways media—and especially the effacement of media—affected human perceptual registers. The pro-

27 D. N. Rodowick, *The Virtual Life of Film* (Cambridge, MA: Harvard University Press, 2007).

28 D. N. Rodowick, *The Crisis of Political Modernism: Criticism and Ideology in Contemporary Film Theory* (Urbana: University of Illinois Press, 1988).

29 Rodowick, xiii.

30 Quotation is from Rodowick, xiv. References are to Jean-Louis Comolli and Jean Narboni, "Cinema/Ideology/Criticism," in *Cahiers du Cinéma, 1969–1972: The Politics of Representation*, ed. Nick Browne (Cambridge, MA: Harvard University Press, 1990); and Peter Wollen, "Godard and Counter-Cinema: *Vent d'Est* (1972)," in *The European Cinema Reader*, ed. Catherine Fowler (London: Routledge, 2002).

31 Quotation in previous sentence is from Rodowick, *Crisis of Political Modernism*, 4. For two examples formulating counter-cinemas, see Claire Johnston, "Women's Cinema as Counter-Cinema," in *Movies and Methods: Volume 1*, ed. Bill Nichols (Berkeley: University of California Press, 1976); and Fernando Solanas and Octavio Gettino, "Towards a Third Cinema: Notes and Experiences for the Development of a Cinema of Liberation in the Third World," in *Film and Theory: An Anthology*, ed. Robert Stam and Toby Miller (Malden, MA: Blackwell, 2000).

posed solution, which traveled the path of medium specificity, was a careful attention to media, a deconstruction of the invisibility of media, and a deployment of media that would take into account the perceptual effects of the medium.³² This problematic—and all three of these solutions—persist in media studies.

Second, understanding some objections to the insistently medium-specific formulations of 1970s screen theory and apparatus theory actually helps us get a handle on what it is about medium specificity that is taken to be objectionable; it even helps us get a view on what we should *not* take medium specificity to mean. For this, I would like to take up a very short piece in a 2013 *JCMS* In Focus. In “New Specificities,” Joshua Neves also starts from the ballooning collection of media studies’ objects. He argues, “the need to account for a greater range of media texts, sites, and practices across diverse cultural and geographic contexts” in contemporary film, TV, and digital media studies requires both zooming in and zooming out, both capturing precise details but also creating new species, categories, and knowledges.³³ He characterizes this work as the production of “new specificities” implicitly designed to ameliorate some excesses of thinking through medium specificity.

In a section on intermediality, Neves begins by claiming medium specificity is both too specific and not specific enough: “The concept is too specific in that it carves out particular media (e.g., film, TV) or modes of production (e.g., art cinema, Hollywood), disconnecting them from the broader media fields we inhabit. However, medium specificity is not specific enough when its abstractions become out of sync with both the material and imaginary problems facing our cultures.”³⁴ Here, he tells the story of the transition from the screen theory and apparatus theory of the 1970s to later audience-focused film studies. While 1970s theory asked medium-specific questions about how the cinematic apparatus hailed or constructed subjects, the subject itself tended to get lost in the theory. It was too specific (just the cinematic apparatus) and not specific enough (the cinematic apparatus in general, not in the contexts of its reception). Against this, reception theories identified new specificities accounting for the active and differential roles of

32 Rodowick writes about the questions that come up with careful attention to medium specificity: “What forms of looking and hearing are constructed by the technology of recording and projecting images? What biases in perception and identification are organized in the construction of cinematic images through devices of perspective, framing, editing, point of view, the relation of sound to image, and so on? Ideological constructions of subjectivity were (and remain) the central problem for the study of film and ideology.” Rodowick, *Virtual Life of Film*, xiii. To my ears, this sounds extremely consonant with McLuhan’s concern for the manner in which new media alter the “sense ratios” of subjects. See Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York: McGraw-Hill, 1964), 18. Stuart Hall makes a similar point: “I have been trying to speak of identity as constituted, not outside but within representation; and hence of cinema, not as a second-order mirror held up to reflect what already exists, but as that form of representation which is able to constitute us as new kinds of subjects, and thereby enable us to discover who we are.” Stuart Hall, “Cultural Identity and Cinematic Representation,” in Stam and Miller, *Film and Theory*, 714.

33 Neves, “New Specificities,” 147.

34 Neves, 150.

various audience communities in constructing the meaning and significance of media objects.

Certainly, medium specificity understood this way—as the affordances-in-any-situation of a medium, with the medium conceived as a given, context-independent object—falls victim to precisely the flaws Neves identifies. A concept of medium specificity that would avoid Neves’s pitfalls would have to be, in my terminology, *relational*, and this in two senses. To avoid being too specific, medium specificity must not lop off any technological object and treat it as stably and independently existing; media must be understood in their relations to other media. To avoid not being specific enough, it must understand media contextually, as they are related to use and production.

As I am about to show, the understanding produced when earlier conceptions of medium specificity are put through the digital crucible meets these requirements. In this way, a reformed medium specificity allows media studies to further propagate the questions asked by apparatus theory about the very real media-specific affordances, ideological structures, and power-differential potentialities that *do adhere in the media themselves*. But by incorporating a relational concern for the role of audiences and user communities, which reception studies convincingly argued was crucial, the new understanding of medium specificity avoids falling into vulgar technological determinism.

DIGITAL MEDIA AND MEDIUM SPECIFICITY

In this story, a crucial moment arrives when film starts to become digital. Around the turn of the century, just as cinema studies was gaining an increasingly solid foothold in the academy, film as a medium began to disappear. VHS cassettes, DVDs, and video were displacing celluloid film at the site of cinematic production and consumption. This led to a fair amount of keening from film buffs and theorists alike about “the death of cinema.”³⁵ The change, though, was not confined to the movies. Soon, not only film but all existing media types seemed to be making the transition to digital. For many thinkers, such as media theorist Lev Manovich, this signaled a crisis for medium specificity. The digital seemed to be swallowing up all previously distinct media. Yet at the same time, several new digital media seemed to be emerging that might warrant their own medium-specific analyses. If all media is digital media, then how is a medium-specific analysis possible? If no media-specific analysis is possible, what account can we give of the newly emerged media? In my telling, this crucial moment in the discipline’s history marks the felt necessity of a generalized media theory.

Manovich responds to this crisis in several places, notably in “Media after Software.” Manovich’s solution is, in his own words, “There is only software.”³⁶ As he rightly points out, it is not “meaningful to talk about unique properties of digital photographs, or electronic texts, or web sites, or digital maps” in terms of their digital nature.³⁷ They cannot be distinguished based

35 Kim, “Between Film,” 19.

36 Lev Manovich, “Media after Software,” *Journal of Visual Culture* 12, no. 1 (April 2013): 32, 34.

37 Manovich, 32.

on the binary code that constitutes them. Rather, only the software environments in which these codes are interpreted can offer distinctions between media. Thus, an analysis based on medium specificity should be thinking precisely *and exclusively* in terms of software. While his premise is well taken, and he is undoubtedly right that thinking through software offers one powerful way to think about new media, his insistence on the exclusivity of software as an analytic category is rather troublesome. For one thing, it leaves at least two powerful medium-specific analytic categories on the table.

In the first place, it glosses over what *is* novel about the digital and becoming-digital in separate media. Within cinema, for instance, the shift from analog to digital entails most crucially a shift from impressions left on a physical medium that are isomorphic to what they record (and that therefore attest to temporal co-presence and “embalm time”—what Bazin identified as the specificity of photographic media) to the generation of heterogeneous code artifacts that simulate space rather than record it.³⁸ While this is quite similar to the shift from analog to digital photography, it is not at all what happens in the shift, say, from analog to digital textual production.

Second, it entirely ignores the *materiality* of digital media. The question that “there is only software” obviously brings up is, well, what about hardware? As I will further detail when I discuss Kittler’s aforementioned proclamations, the idea that media become indistinguishable when they become digital can only be founded on either an immaterialism or a too-narrow idea of materiality. By the time of Manovich’s 2013 publication of “Media after Software,” the materialist turn in media studies was already well underway. Jussi Parikka, for instance, had been taking a “geological” approach to new media for well over a decade; Matthew Kirschenbaum wrote convincingly in 2008 about “Storage, Inscription, and Computer Forensics”; crucially, Wendy Hui Kyong Chun drew attention to the ways imaginaries of the digital as a universal medium elide the materiality of digital substrates; N. Katherine Hayles had been arguing for the importance of the embodiment of cognitive informational processes since at least 1999; and attention to the ecological effects of hardware technology was widespread.³⁹

Against Manovich’s narrow prescriptivism, then, I’d like to highlight and formalize an alternative conception of medium specificity that, while it emerges from a strong tradition in analog cinema studies, becomes necessary and then prominent starting when cinema becomes both analog and digital. For this purpose, I will look at two accounts of the effects of the becoming-digital of the film medium. I will examine Rodowick’s characterization of cinema’s analog-to-digital transition in *The Virtual Life of Film* and Alanna Thain’s 2010 article “Anarchival Cinema,” in which Thain considers what

38 André Bazin, “The Ontology of the Photographic Image,” trans. Hugh Gray, *Film Quarterly* 13, no. 4 (Summer 1960): 8; and Rodowick, *Virtual Life of Film*.

39 Parikka, *Geology*; Matthew G. Kirschenbaum, “‘Every Contact Leaves a Trace’: Storage, Inscription, and Computer Forensics,” in *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2008); Wendy Hui Kyong Chun, “On Software, or the Persistence of Visual Knowledge,” *Grey Room* 18 (Winter 2005): 26–51; and N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999).

happens to cinema with the emergence of mobile entertainment technologies such as Walkmans and iPods.⁴⁰

First, Rodowick uses the changing nature of the cinematic material substrate to identify more precisely the *variable* specificity of cinema. For him, the fact that cinema does not have a stable material identity across time means its specificity must lie elsewhere. He identifies this specificity as “a twofold virtuality defined by a vertiginous spatialization of time and temporalization of space as well as a peculiar perceptual and psychological instability wherein the spectator pursues a doubly absent object.”⁴¹ This medium specificity defines cinema even as the material substrate changes and, indeed, can only be recognized as the specificity of cinema *because of* the change. Cinema studies, Rodowick says, *has no solid ontological basis*: no set of essential, transhistorical characteristics of something called *cinema* grounds the field. It is not our object that defines us. Like Price, for whom attention to medium specificity was *the* animating and unifying characteristic of film theory, Rodowick locates continuity not in an unchanging object but in persistent attention. In the diachronic and perspectival accounts of both thinkers, medium specificity is, contra Carroll, neither essentialist nor deterministic: paying attention to how medium specificity changes over time and understanding how that attention analytically co-produces the specificity are precisely what show essentialism and determinism to be errors.

In *The Virtual Life of Film*, Rodowick, an avowed cinephile, opines wistfully that the theatrical experience has diminished in significant ways. Thain accepts this development and hits the ground running, asking, “What happens when we re-imagine the event of cinema as no longer characterized by a spatially discrete and immersive place, but in terms of the relationality of bodies moving in spacetime?”⁴² For her, the figure of the bright screen in the darkened room, which swallows up perceptual attention and puts an (actually) immobilized viewer into (perceived) virtual movement, is supplanted by a logic of actual movement of the cinematic consumer. The chief symbolic representation of the cinematic experience ceases being the screen and becomes the set of headphones.

Even without rehearsing the details of her argument here, Thain’s fundamental critical gesture is illuminating: cinema’s escape from the theater does not vitiate the notion that cinema has a specificity; rather, it demonstrates that its specificity is always available to change. As with both Rodowick’s and Price’s conceptions, to accept this idea implies a diachronic approach to medium specificity. It also implies a medium specificity that transects different layers of analysis. It is neither merely the material substrate nor the code level that is important. In Thain’s analysis, the *device* ends up being a crucial layer, but it is precisely her mode of attending to medium specificity that draws forth the insight that the device is a crucial figure. Chasing a changing specificity through technical and cultural development over time better attunes an analyst to the features that determine that specificity. Instead of

40 Rodowick, *Virtual Life of Film*; and Alanna Thain, “Anarchival Cinema,” in “Transversal Fields of Experience,” *Inflexions* 4 (December 2010).

41 Rodowick, *Virtual Life of Film*, 32.

42 Thain, “Anarchival Cinema,” 49.

rigidly insisting one particular level of analysis or abstraction or materiality (such as the software level) is where the borders between media are defined, this scale-flexible approach to medium specificity can help determine at which level the crucial elements lie.

In refusing to stabilize medium specificity at any one level, this approach also must give up on any complete taxonomy that could enumerate the different media and hold them apart: media distinct at one level may be part of the same configuration at another, components of a coherent medium at one level might belong to two distinct larger formations at another, and so on. Not incidentally, this solves one of Neves's problems with medium specificity, since it entails a refusal to lop off any one object and consider it as a bounded, given medium. Rather, media boundaries shift and interpenetrate as we scale or rappel levels.

On this side of digital convergence, a robust conception of medium specificity must recognize four of medium specificity's features: it changes over time (diachronic), it is different at different scales (scale-flexible), it depends on the medium's relation to other media (relational), and it is co-produced by the analytical angle taken toward it (perspectival). In current scholarship in the field, we can see this conception at work. Within cinema studies, this is especially true of theorists focused on post-cinema and post-media—that is, theorists focused on the repercussions of the digital for cinema or theorists debunking the so-called death of cinema, a death supposed to follow from digital convergence.⁴³ Jihoon Kim, for instance, writing about hybrid moving images, seeks to reconcile conceptions of medium specificity and media hybridity, arguing for an understanding of medium specificity that takes it to be (in my terms) relational and diachronic.⁴⁴ Likewise, Jonathan Walley, in his 2020 book on expanded cinema, argues against the feeling that medium specificity is a “theoretical monolith” or expresses “technological determinism.” Instead, he “at once revises the concept of medium specificity and defends it.”⁴⁵ (It seems we are always revising the concept of medium specificity, which may be why it remains so generative.) His prescription for medium specificity takes it to be (again in my terms) perspectival and relational.⁴⁶

I would like to take a step away from cinema, though, to show that this understanding of medium specificity offers a good answer to the pressing questions of disciplinary coherence, one able to explain our embrace of far-flung objects. Not only will I step away from cinema; I will step away from objects of study that are traditionally understood to be media. For this, I'll take up Peters's *The Marvelous Clouds*, in which Peters examines, among other things, the ocean as a medium. For if we can see how this conception of medium specificity justifies the inclusion in the discipline of works focused on things outside the discipline's traditional purview, we take a significant

43 Kim, while discussing Anne Friedberg's work, puts this quite succinctly: “Viewed together, these discourses of the death of cinema are consolidated into what Anne Friedberg sees as a consequence of media convergence, an end of filmic medium specificity in its traditional sense.” Kim, “Between Film,” 20–21.

44 Kim, see esp. 4, 6, 13–17.

45 Jonathan Walley, *Cinema Expanded: Avant-Garde Film in the Age of Intermedia* (New York: Oxford University Press, 2020), 23.

46 See especially Walley, 18–19, 26.

step toward understanding the coherence of cinema and media studies, even while it expands. Indeed, we get some insight into what we might mean when we say *media*.

Peters compares human and cetacean development to draw out the specificity of the ocean as a medium. For him, a medium changes over time, and not *only* if its features change: a change in the media around it can change what it is *as a medium*. For instance, the sea becomes a medium for people with the invention of the ship. But crucially, as evident in that formulation, a medium is *only* a medium *for* something. The sea, for instance, has not always been a medium for humans, but it has always been a medium for dolphins. Because the recursions in Peters's description are telling, I'll quote him at some length.

Let's try this difficult definitional work one more time. A medium reveals a medium—as medium. Without other media, a medium is not a medium. Is the ship or the sea the medium? To dolphins the sea could be a medium: they are their own ships. But only non-dolphins can see that the sea is a medium to them. (An undisturbed medium is rarely understood as a medium, so perhaps anthropogenic intervention in the ocean has made its medium specificity clearer to cetaceans.) To us the ship is clearly a medium, but it is a medium that reveals and makes navigable another medium, the sea.⁴⁷

Peters's use of medium specificity is (1) diachronic: it considers not transhistorical essences of media but rather attends to the shifting terrain of specificity over time. The invention of the ship changed the status of the ocean as a medium without vitiating the idea that the ocean has specificity just as for Rodowick the advent of the digital changed cinema's specificity without vitiating the idea that cinema has specificity. It is (2) scale-flexible: if ships and the sea and the earth can all equally be considered media, this is not because there is a stable *medium level* at which a disjunct taxonomy of media could be identified—indeed, this is what Manovich would insist on by stabilizing the media concept at the software level. The concept of medium specificity among these nested and overlapping layers *helps isolate significant scales of analysis*. It is (3) relational, as considered in isolation from other media, the question of the specificity of any medium is meaningless. The ship reveals the sea *as a medium*; “Without other media, a medium is not a medium.” Similarly, in *Network Aesthetics*, Patrick Jagoda writes the interlinking of objects through networks requires comparatist work to be more subtle, though it does not destroy its possibility: we must attend to medium specificity *but only within a transmedia ecology*.⁴⁸ And Peters's specificity is (4) perspectival: media are only media when considered from a certain angle, and this angle is crucial to the answer one will get to the question of medium specificity. Not only has the sea always been a medium for dolphins, though not always for humans, but

47 Peters, *Marvelous Clouds*, 111–112.

48 Patrick Jagoda, *Network Aesthetics* (Chicago: University of Chicago Press, 2016), 31.

changes to the sea and its interacting media will change its specificity differently if you are looking at it as a person or as a dolphin. It is not so much that this or that thing *is* a medium, exactly, so much as it can be more or less fruitful, and even more or less proper, to *consider it as* a medium from a certain perspective and within a complex, interdependent media ecology. In media studies on this side of the digital convergence, this is how a robust concept of medium specificity must—and does—work: it is a diachronic, scale-flexible, relational, and perspectival operation.

So, medium specificity is a concern that substantially links cinema and media studies, though its conceptualization has not remained stable. With the advent of digital technologies—when cinema began to straddle two material substrates—the notion of a stable cinematic medium was unequivocally demonstrated to be an illusion. At this point, a generalized media theory was needed, and medium specificity, rather than being junked, was turned into a more flexible and reflexive concept. Importantly, medium specificity is not only a useful exegetical tool, allowing the theorist to explain certain media features, but also a useful heuristic tool, as it helps attune media theorists to significant scales of analysis. This helps explain how media theorists can take such a diverse range of objects into our ambit without fracturing the field into “isolated microconversations.”⁴⁹

It remains to be shown that this position is superior to its opposite. In the next section, I will show what is wrong with the digital despecification thesis and what is lost by maintaining it. I will demonstrate, first, that the idea depends on a combination of immaterialism and too-narrow materialism, making it both conceptually unwarranted and analytically dull. I will conclude by showing that the digital despecification thesis entails abandoning long-standing modes by which cinema and media studies does political work and thus giving up on animating concerns of the field.

REFUTING THE OBSOLESCENCE OF MEDIUM SPECIFICITY

Kittler famously espouses the digital despecification thesis in the first line of *Gramophone, Film, Typewriter*. He writes, “Once movies and music, phone calls and texts reach households via optical fiber cables, the formerly distinct media of television, radio, telephone, and mail converge, standardized by transmission frequencies and bit format.”⁵⁰ Once made digital, these media are no longer distinct. “[S]omething is coming to an end,” he writes. “The general digitization of channels and information erases the differences among individual media.”⁵¹ The universal equivalent of binary acts as a solvent just as Georg Simmel’s universal equivalent of money makes all value structures commensurable; numbers melt what had been structure into sludge.⁵² “[O]nce optical fiber networks turn formerly distinct data flows into a standardized series of digitized numbers, any medium can be translated

49 Hilderbrand, “Big Picture,” 113–114.

50 Kittler, *Gramophone*, 1.

51 Kittler, 1.

52 Georg Simmel, *The Philosophy of Money*, trans. Tom Bottomore and David Frisby (London: Routledge & Kegan Paul, 1978).

into any other. *With numbers, everything goes.*⁵³ For Kittler, this convergence spells an *end* of media. The computer, as Geoffrey Winthrop-Young and Michael Wutz put it in their translators' introduction, is "the medium to end all media."⁵⁴ With the advent of the digital, the end of medium specificity; with the end of medium specificity, the end of media.

Kittler is not the only theorist to make such claims. The history of the understanding of digital media, from popular and academic standpoints, is rife with thoughts of immateriality and disembodiment. It should be sufficient here to conjure the scene of the 1990s and the early 2000s, in which the Internet was heralded as the ultimate immaterial technology; techno-utopian and futurist visionaries (I'm looking at you, Ray Kurzweil) confidently pronounced our immanent escape from our bodies—to be reincarnated as informational patterns on silicon; and digital data, as the new format of all information, was lusted over as the new oil, the hottest new commodity for capitalist valorization, making the *new* economy suddenly, miraculously frictionless.

But the emphasis on disembodiment and immateriality has not been without significant pushback. Mark Hansen, for instance, has developed a program in diametric opposition to this theory, as Tim Lenoir points out in his foreword to *New Philosophy for New Media*: "In contrast to Kittler, here a representative of theorists who focus on digital media as sites of disembodiment, Hansen has developed a new phenomenology . . . [that] emphasizes the role of the affective, proprioceptive, and tactile dimensions of experience in the constitution of space, and by extension visual media."⁵⁵ Against the idea that the convergence of media onto digital substrates spells the dissolution of media into indistinguishability, Hansen demonstrates human cognitive and bodily processes are irreducible in constructing digital information. The particularity of digital information, then, is not comprehended by its digitality alone.

It may seem odd that I begin my refutation of the idea of medium specificity's obsolescence by talking about disembodiment and immaterialism. However, as is implicit in Kittler's argument, these are intimately linked. As Hayles details, Kittler's idea that the digital convergence spells the end of media depends on eliding the differences between the material substrates that hold digital data. We are only able to believe that all different information types become identical as soon as they are instantiated in binary if we imagine an ideal "information" that can float free from its context without changing its identity.⁵⁶ And this persists in the concept's afterlife. Thinking again of Kurzweil, it is only possible to believe the human can be seamlessly uploaded onto the computer if we ignore the specificity of human and machine materiality, focusing instead *only* on abstract data that can supposedly be embodied in either without distinction. Hayles traces this immaterialism back to the Shannon-Weaver theory of information, which won out

53 Kittler, *Gramophone*, 1 (emphasis mine).

54 Winthrop-Young and Wutz, "Translators' Introduction," xxx.

55 Timothy Lenoir, foreword to *New Philosophy for New Media*, by Mark B. N. Hansen (Cambridge, MA: MIT Press, 2004), xviii.

56 Hayles, *How We Became Posthuman*, 18–21.

against the more contextual, but more difficult to mathematize, ideas of Donald McKay in the 1940s and 1950s Macy Conferences so central to cybernetics and the history of communications. It is against this idea, then, that Hansen's theory of embodiment is so useful. Likewise, Hayles's later work, in particular *Unthought*, shows how information is always embedded and argues for the different status of information in different contexts.⁵⁷

Even Kittler eventually undermined his own claims of universal digital equivalence, and he did so by refocusing on materiality. In "There Is No Software," he takes on the idea of translatability.⁵⁸ Once Alan Turing proved all mathematically calculable problems can be solved (in principle) on a simple machine, all software environments were (in principle) universally exchangeable. By this view, specificities are only happenstantial particularities of the instantiation of the universal Turing machine. But crucially, as Kittler says, the universal Turing machine does not exist outside Turing's paper. Each hardware instantiation *is* different, with different limits and parameters, and each software instantiation depends on these particularities. Real, particular hardware is irreducible, no matter how much the Tower of Babel of nested layers of programming languages tempts us to forget that every computer process is a hardware process. In showing how the supposed universality of all digital information processing systems runs up against the very specific hardware constraints of any finite material instantiation, Kittler re-introduces a bevy of material specificities, re-opening a path for considerations of specificity in a Kittlerian media analysis by refuting the immaterialism of digital abstraction.

The despecification thesis, like Manovich's insistence on software as *the* level where media differentiation must be conceptualized, ends up being both hyperopic and myopic, combining an informational immaterialism with a too-narrow materialism focused exclusively on digitality. It's hyperopic since it sees all information, once digitized, as equivalent. Through an immaterialism that takes the digital to be *purely* informational, all digital signals, no matter the substrate, are thought equivalent. Wendy Chun makes this point rather forcefully when she says one of the "fundamental axioms of digital media" is that "the digital reduces the analog—the real world—to 1s and 0s. By doing so the digital allegedly releases and circulates information that before clung stubbornly to material substances, effectively erasing the importance of context and embodiment."⁵⁹ She puts the lie to this "axiom" by pointing out that since digital substrates, such as magnetic tape and solid-state memory, are actually analog media brought into the digital through threshold definition, "the analogue is not the opposite, but rather the 'ground' of the digital." Even on digital devices, information is not itself digital—as information generally is neither naturally nor inherently

57 N. Katherine Hayles, *Unthought: The Power of the Cognitive Nonconscious* (Chicago: University of Chicago Press, 2017).

58 Friedrich A. Kittler, "There Is No Software," in *The Truth of the Technological World: Essays on the Genealogy of Present*, trans. Erik Butler (Stanford, CA: Stanford University Press, 2013), 219–229.

59 Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge, MA: MIT Press, 2011), 139.

binary—since all “digital” information actually involves “the transmission of continuous electronic signals.”⁶⁰ The immaterialism that conceptualizes the digital as purely informational and information as disembodied, equivalent no matter what its material instantiation, is required to uphold the digital despecification thesis, but it is not tenable.

The digital despecification thesis is myopic since it sees the digital through a too-narrow materialism in that *the digital being of digital signals is conceived as their only material context*. Why should Kittler have been so fixated exclusively on the fiber-optic cable? Especially as many other material devices were coming into media production and reception? For instance, even when they became digital, radio and television were still produced and consumed using different devices. Thain’s attention to the changes in devices of cinematic reception as they bear on the medium specificity of cinema refuses the near-sightedness that would see no aspect of cinema’s materiality save its digitality.

To assert that digital media no longer have medium specificity is to think of them purely in terms of their digital nature, combining both immaterialism (the digital as ideal information) and a too-narrow materialism (binary digits as the only relevant material). Against this, the idea of medium specificity as diachronic, scale-flexible, relational, and perspectival embraces the difficulties posed by the digital convergence and incorporates them into a more complete and nuanced understanding of media. To put a fine point on this, we can bring another foundational media theorist into the conversation: Marshall McLuhan famously proclaimed that the content of any medium is always another medium.

“The content of the press is literary statement,” writes McLuhan, “as the content of the book is speech, and the content of the movie is the novel.”⁶¹ In McLuhan’s multi-layered conception of media, media cannot be distinguished *only* at the level of material substrate, nor *only* at the level of abstract informational content, nor *only*, contra Manovich, at the software level. Rather, media exist in complicated stacks up and down from one another, and media can be identified and analyzed at many different levels. I have suggested that medium specificity *itself* is a crucial concept for identifying the layer at which one should be focused for a particular problem: On the one hand, it makes absolute sense to talk about digital media as a particular object of study, one with its own medium specificity across all digital media. On the other hand, the specificity of digital media thought together does not vitiate the idea that, at different levels, there are yet distinct media, each with its own medium specificity. For instance, if, like Rodowick, one is interested in what is specific to cinema *across* the transition from analog to digital cinema, one will simply think about the medium of cinema, whereas if one is interested in what new possibilities digital cinema brings, one will think about the medium specificity of digital cinema in particular. If instead one is interested in indexicality versus simulation, one might consider the medium specificity of analog image capture media, including film and still photography, in contrast to that of digital image capture technologies.

60 Chun, 139.

61 McLuhan, *Understanding Media*, 305.

As a final example of media theory making good use of a nuanced conception of medium specificity, I offer Lisa Gitelman's work in *Paper Knowledge*, which takes up the long history of the document. The document, as a fundamentally vernacular medium, doesn't admit of analyses in terms of authorship and sidesteps many fetishes and vagaries common in thinking about media. Gitelman analyzes a wide array of document formats, considering each as *both* its own medium *and* a constituent of the medium of the document. She tracks the document through its development, presenting chapters on job printing, such as the printing of telegram blanks, meal tickets, and stock certificates; document reproduction media that started emerging in the 1930s, such as photo-offset, mimeograph, hectograph, and microfilm; the photocopy; and digital documents, especially the PDF.⁶² Thus, she shows *both* what is stable *and* what changes about the specificity of the document. The document attests to *both* the continuities *and* the ruptures in media history. Here, there is no contradiction.

WHY SHOULD I CARE? THE STAKES OF MEDIUM SPECIFICITY

We must also ask what difference these differing positions on medium specificity make. While I have already spelled out the analytical stakes, I would like to look at two strains of political thinking that run through contemporary cinema and media studies. Both would be destroyed by believing the becoming-digital of media to be the end of medium specificity. The digital despecification thesis damages the discipline's ability to think politically.

While the first strain of political thinking has a longer prehistory than is necessary to detail here, we can simply return to apparatus theory to see it prominently displayed. Following 1968, as cinema studies thinkers turned an increasingly sharp analytical eye to the psychological operations of film, the specificity of the film apparatus came into focus. *Cahiers du cinéma* made this turn decisively, attempting to "understand cinema, following the work of Louis Althusser, as a state apparatus designed for the interpellation of subjects into dominant ideology."⁶³ Apparatus theorists such as Christian Metz and Jean-Louis Baudry sought to understand the ways in which subjects are produced by the medium specificity of the cinematic apparatus. This turn in *Cahiers* helped usher in a larger turn to the "structuralism, post-structuralism, semiology, Marxism, and psychoanalysis that would dominate film theory in the 1970s," as well as, we should add, feminist theory.⁶⁴ Claire Johnston, for instance, unites these various threads in her 1973 "Women's Cinema as Counter-Cinema." She draws on *Cahiers'* Althusser-inspired work, Roland Barthes's semiological theory of mythology, and Wollen's auteur theory writings to show how the production of women in dominant cinema is inherently tied up with the unconscious beliefs of filmmakers. She argues the truth of women's subjugation cannot be merely depicted or reported; it must be produced as an effect in the viewing subject.⁶⁵ In this, she signals the

62 Lisa Gitelman, *Paper Knowledge: Toward a Media History of Documents* (Durham, NC: Duke University Press, 2014).

63 Price, "Latest Laocoön," 61–62.

64 Price, 62.

65 Johnston, "Women's Cinema."

ability of the cinema medium to operate on the level of subject formation, and she locates its potential political power (good or bad) in this capacity. While apparatus theory and its direct descendants surely have their issues, as discussed in connection to Neves's objections, the operation of media in subject formation is undoubtedly only *increasingly* relevant on this side of the digital convergence. Medium specificity allows us to keep these concerns alive while finding *new* answers with the emergence of new media.

Indeed, the concern with the imbrication of medium specificity and subject formation is carried forward into media studies, but rather than inspecting the manner in which a *single* medium (cinema) operates on the subjective level, media theorists used their newly flexible concept of medium specificity to discover different scales and formations of media entangled with subject production. For instance, we could think of Hansen's previously mentioned embodied phenomenology; Safiya Noble's account of how Google's PageRank algorithm enforces the construction of racist subjectivities; and Tiziana Terranova's touchstone argument in *Network Culture* that the most important power of networked communication media is "establishing a subjective correspondence between images, percepts, affects and beliefs."⁶⁶ If we were to accept the digital despecification thesis and believe medium specificity "makes less and less sense as our media converge," it would be hard to see how these accounts of visual media, search algorithms, and networked media could all say such different politically salient things about the influence of media on the subject.⁶⁷

In the second lineage, CMS scholars attend closely to technological logics and explicate how they are used in processes of control. This line of thinking arises largely through the discipline's interest in the early history of computing, particularly the development of cybernetics. To be a bit simplistic for brevity's sake, cybernetics operated through an insistent analogy between machine and organism and primarily considered how feedback mechanisms regulate machines or systems. Crucially, cybernetics saw technological *logics* as equally operative in machine and human systems. This emphasis on technological logics is taken up by media theorists for explicitly political ends.

For instance, Alexander Galloway and Eugene Thacker's 2007 *The Exploit* asks how biopolitics operate in what Gilles Deleuze has termed a "control society."⁶⁸ For them, the answer is network protocol. Protocol demonstrates how, even in a leaderless, non-centralized, rhizomatic network, control can still be immanent to every part of the network. Protocological logics allow single actors to effect global change (in the technical sense): think of the compulsory software update or the successful computer worm. For Galloway and Thacker, then, isolating the medium specificity of the computer network allows them to identify a particular technological logic at work in the political sphere. But this is no mere resemblance; protocol as a logic

66 Safiya U. Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York: New York University Press, 2018); and Tiziana Terranova, *Network Culture: Politics for the Information Age* (London: Pluto Press, 2004), 152.

67 Hilderbrand, "Big Picture," 116.

68 Alexander R. Galloway and Eugene Thacker, *The Exploit: A Theory of Networks* (Minneapolis: University of Minnesota Press, 2007).

explains the actual manner of operation of biopolitical control.⁶⁹ By thinking through medium specificity, they've discovered an important scale at which protocological control can be defined.⁷⁰

A final example ties these two strains together and shows starkly how the digital despecification thesis dulls CMS. In *Programmed Inequality: How Britain Discarded Women Technologists and Lost Its Edge in Computing*, Mar Hicks gives an account of the gendered politics of early computing in Britain.⁷¹ They convincingly show how the development of Britain's computing industry was designed to reinforce the gendered and heteronormative status quo. Hicks also demonstrates that these ideological formations were *designed and built into the developing technology*: heteronormativity and gender conservatism influenced, and are still active within, computer design. There was a concerted effort to professionalize computing in Britain after World War II, but most of the available qualified programmers were women, and a professionalized discipline was supposed to be populated by men. It was thus desirable to have a small, male technocratic elite controlling computing processes: this led to greater and greater centralization and profoundly influenced the design of mainframe architectures. For Hicks, it is politically important to show that "contrary to popular belief, high technology is often as socially regressive as it is technically revolutionary or progressive."⁷² To misappropriate a slogan, Hicks shows how *the technological is political*. If all digital media, by being digital, are equivalent, then the specificity that allows racist and sexist logics to be built into specific digital machines and to be operative in subjectification would simply be invisible. The digital despecification thesis rests on the same technological essentialism that the transition from analog to digital cinema specifically taught cinema and media theorists to reject. By thinking of all digital media as equivalent, it posits an essential nature to the digital. The next step in that line of thinking is to believe media technologies merely express purely technical, apolitical logics. The idea that digital convergence marks the end of medium specificity is not only conceptually unwarranted, it is analytically counterproductive and gives away CMS's ability to have political vision.

CONCLUSION

In "The Sustainability of Film and Media Studies," another contribution to the In Focus dossier that set me going, Kristen J. Warner laments the invisibility of film and media studies both in popular conversations and to

69 On this point, they convincingly cite the influence that the relatively right-wing "netwar" theorists John Arquilla and David Ronfeldt had on certain key members of the Bush administration. Galloway and Thacker, 17–18, 66–67, 151–152.

70 Their method is also a guide for political action. Protocols, they say, can be hacked by locating "exploits," or places in which the protocological logic allows for action that works against the dictates of control. This action is the basis for a counter-protocological politics they claim is up to the challenge of taking on distributed control. Galloway and Thacker, see esp. 88–90, 98–101. We might also be reminded of McKenzie Wark, *A Hacker Manifesto* (Cambridge, MA: Harvard University Press, 2004).

71 Mar Hicks, *Programmed Inequality: How Britain Discarded Women Technologists and Lost Its Edge in Computing* (Cambridge, MA: MIT Press, 2017).

72 Hicks, 17.

our academic neighbors. Regarding the latter, she believes we have ceded ground, “yield[ing] our expertise in a quest to remain committed to interdisciplinarity and without being offered—or, quite frankly, asking for—reciprocity.”⁷³ Warner concludes with a call to “get our shit back.”⁷⁴

While Warner is quite precise and eminently practical about how to do this, the idea of getting our shit back is also theoretically interesting: it poses the question of what our shit is. What is the expertise being ignored? I hope it is clear by now that our shit cannot be our objects. First of all, they are too many and too widely spread to provide a coherent territorial border for the field. More importantly, though, with the generalization of media and their increasing penetration of our life-worlds, media *are* increasingly relevant to anyone studying the present or recent past. *Of course*, we should not be defending the exclusive right to write on cinema or TV or social media; nor should we insist that all writing on these topics be media-theoretical or even gesture deferentially toward media studies. What, then?

Amaya writes, “the future of the discipline will be about large organizing questions and thematic engagements that help us come together in new community structures.”⁷⁵ For instance, we will have to tackle “the increasing skepticism over the role of science, truth, and objectivity in our lives.”⁷⁶ Clearly, this is not a question exclusive to cinema and media studies. So, if it is able to bring us together, how? And what is special about cinema and media studies’ ability to speak to it? What can a cinema and media studies approach do that a cultural studies or a political economy approach cannot? I submit that while plenty of disciplines are equipped to approach and think about various media, we are the ones best equipped to understand them *as media*.

McLuhan also famously pronounced “the ‘content’ of a medium is like the juicy piece of meat carried by the burglar to distract the watch-dog of the mind.”⁷⁷ By considering media *as media*, by thinking of what inheres in them, by keeping ever in mind the ways in which “the medium is the message,” we as cinema and media studies scholars can be more judicious—less distractable—watchdogs. This is the service we can provide our academic neighbors, to remind them of the inherencies, potentialities, and specificities of media, to show how medium specificity is imbricated in the complex and interfolded sociotechnical fabric we are trying—across the disciplines—to get a view of, to let no one fall into the illusion that media are neutral. Furthermore, just as the contested theorizations I’ve sketched of the specificity of cinema *themselves* patterned the uses made of the cinema medium, the understandings we are now producing of newly emerged technologies—and digital

73 While these complaints, especially in an era of such academic precarity as our own, are understandable, there is still a proprietary sense here in which incursions into media studies “territory” by people who do not recognize or pay attention to our field are something of an affront. It is easy to see how a conception of the field as being organized around a bounded set of objects would flow to this proprietary feeling. Kristen J. Warner, “The Sustainability of Film and Media Studies,” *Cinema Journal* 57, no. 2 (Winter 2018): 144.

74 Warner, 145.

75 Amaya, “Discipline,” 118.

76 Amaya, 118.

77 McLuhan, *Understanding Media*, 18.

media generally—will go on to inform not only how they are understood but also how they are used. In a period of technological transformation, this is a profound responsibility.

In her book of the same name, Zara Dinnen identifies an affect she calls the “digital banal.” The proliferation of digital technologies and their rapid integration into our life-worlds makes them feel boring and quotidian. This does not just happen quickly; it happens immediately, the moment new technologies come into existence. This banality often *conceals* the real unexplored novelty or revolutionary potential of these technologies, and we are lulled into complacency over their avowedly late-capitalist uses and subjective effects. The banality of digital media “makes us unaware of the ways we are co-constituted as subjects with media.”⁷⁸ Just as McLuhan warned us not to let content distract us, neither should we be stupefied by the universalization of the digital, for to believe in the end of particularities, of media specificities, is indeed to believe in the end of media, and it should be the end of media studies. In the paragraph following the famous quotation, McLuhan further writes, “The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without resistance. The serious artist is the only person able to encounter technology with impunity, just because he is an expert aware of the changes in sense perception.”⁷⁹ The artist and, perhaps, the media theorist.

Jordan Sjol is a cinema and media scholar and a professional filmmaker. After finishing his PhD in the Graduate Program in Literature at Duke University in spring 2023, he will join the faculty of Film and Media Arts at DePauw University.

78 Zara Dinnen, *The Digital Banal: New Media and American Literature and Culture* (New York: Columbia University Press, 2018), 1.

79 McLuhan, *Understanding Media*, 18.