

## Introduction: The Life Cycles of Media

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At the close of 2020, Adobe Flash Player reached its end-of-life (EOL) cycle, as parent company Adobe effectively pulled the plug on the outdated software after twenty-four years of service and three years after the company's initial announcement in 2017. In turn, web browsers like Google Chrome warned users and developers that they would stop supporting the program, requiring content creators to migrate any web content still running on Flash to newer open format alternatives including HTML5, WebGL, and WebAssembly. Adobe Flash Player was integral to the operation of online desktop games, graphical user interface (GUI) elements, and multimedia components embedded into the webpages of an earlier internet of the late 1990s and 2000s; its discontinuation as the internet enters a new chapter beyond its use thus serves as a reminder of the life cycles of digital media. While some developers have updated their web content, others will allow their content to become unusable digital detritus, visible evidence of another stage in the life cycle of the internet.

Such instances of abandonment, decay, and transformation compelled us to consider the multitudes of life cycles that media undergo. The reformatting of outdated web content and panicked efforts to salvage obscure corners of an earlier internet threatened by extinction raise significant questions at the intersections of obsolescence and nostalgia. This process exemplifies Jay David Bolter and Richard Grusin's notion of *remediation*, the way earlier forms are recycled and refashioned into newer forms rather than simply

displaced or abandoned.<sup>1</sup> Their theory of remediation enables a deeper understanding of the cyclical life of media. Of course, any discussion of media life cycles must grapple with the material consequences of this constant updating and refashioning. This is not only in relation to waste but also to the extractive processes that supply the raw materials needed to build and power new media forms—bringing geological, deep time into our picture. Garnet Hertz and Jussi Parikka have explored such questions through their conception of *zombie media*—the idea that media never really dies, but instead toxifies the planet as slowly decomposing waste, or else is revitalized and revived in hardware hacking circles.<sup>2</sup>

These ideas were at the front of our minds as we developed the rationale for this issue of *Media Fields*—until COVID-19 became a global pandemic in early 2020, drastically shifting everyone’s understanding of life cycles. Lockdown orders and stay-at-home guidelines underscored the experience of endless loops of time. Updates were shared by many users who would compulsively scroll through social media feeds and refresh a 24/7 news cycle connected to coverage around the pandemic and political unrest tied to the murder of George Floyd at the hands of Minneapolis police. As historical events came to pass with stunning frequency over the course of the past year, we were obliged to reconsider the theme of life cycles in this broader context of the ongoing pandemic and to see how this theme could be reexamined amidst conditions of risk and panic.

The authors who have contributed to this issue of *Media Fields* engage with the theme of life cycles in nuanced and expansive ways across fifteen articles. Some investigate media life cycles with regards to ongoing legacies of colonialism and imperialism, exploring varied topics of logistics, surveillance, securitization, reification, and control. Others take a media archaeological approach to address nostalgia and revival or highlight the materiality of life cycles and the environmental devastation wrought by extraction, accumulation, and waste. Still, others focus on the COVID-19 pandemic directly and how it has affected everything from theatrical exhibition cycles to the ways we mourn.

Turning back the pages of history in an invited contribution, Seb Franklin examines the ways that people have been violently organized and traded—here in the context of the Atlantic slave trade—and the systems that facilitate such processes. He builds upon work of John Durham Peters on logistical media—those technologies that “arrange people and property into time and

space”—including calendars, census, maps, money, and so on. While existing work largely examines these technical infrastructures of logistics, Franklin turns our attention instead to the social relations that undergird it. Framing the discussion with artist Cameron Rowland’s exhibition *Encumbrance* (2020), Seb Franklin notes Rowland’s work in highlighting the role plantation mortgages historically played in the financing of the slave economy. He argues that *Encumbrance* reveals an economic system structured by the differential valuation of racialized labor and suggests that the logistical turn in media studies must accommodate this “racializing logic of value-mediated social relations.” Life cycles thus serve as a useful framework to analyze commodity circulation and the means by which life is differentially integrated and valued in the slave trade, as these processes of extraction, circulation, and financialization “continue to resonate through its afterlives.”

Ian J. Alexander pivots to another form of logistical media: the pay phone, a media technology that structures time and space within the carceral apparatus. Offering a vital intervention to Hertz and Parikka’s conception of zombie media, Alexander focuses our attention on prison pay phones that are “pronounced dead outside the prison” but nevertheless serve as a vital lifeline for incarcerated people. Alexander argues that the prison pay phone comprises part of the carceral apparatus that structures the experience of time for those incarcerated and maintains distance from outside prison walls, with its strictly scheduled, limited, and commodified use, in contrast to individualized technologies like smartphones that must be forfeited. Taking readers through a brief history of pay phone implementation and imaginaries, Alexander outlines the moral panics that link the anonymity of public pay phones with perceived criminal ties to drug dealers and sex workers criminality. Public pay phones thus create problems of surveillance by allowing “anonymized entry into the telephonic and social infrastructure.” As a result, the pay phone is strictly regimented by the carceral apparatus in ways that structure disaggregation, disappearance, and social death via this “captive temporality.” Both a technology of “extractive capital” and “the prison’s own surveillance machine,” it preys on some of the most vulnerable members of society and perpetuates carceral exploitation and violence.

Questions of logistics and monitoring take on different forms in Jörgen Rahm-Skågeby’s piece, which takes up the question of media revivals in relation to the resurgence of analog audio formats. More than simply the newest container for recorded music, streaming epitomizes “a will to

logistically monitor and manipulate consumption of music” that has existed since the earliest commercial forms of recorded sound. Accessible across devices at the swipe of a screen, music appears to dematerialize and become uncontained—in the same moment that our listening practices become more carefully monitored and measured than ever. The flexibility of seemingly immaterial music provides cover for a different kind of control through algorithms and code. Rahm-Skågeby draws on the work of Vivian Sobchak to argue that today’s analog format revivals are a kind of “re-presencing” that bring these formats into the present, re-containing recorded music in ways that might provide an alternative to the data logistics of streaming—which ultimately requires more resources and presents a greater ecological threat than supposedly obsolete physical formats.

Meanwhile, the biological dimension of the metaphor of a life cycle is explored in Justin Grandinetti’s piece on data life cycles. The fact that one’s digital data persists after their corporeal body has passed, and that this data can be used in machine and deep learning AI training, raises serious philosophical questions about the boundaries of the subject. The hauntedness of data life cycles as they are utilized for AI complicates not only the binary distinction between life and death but also the assumption that the subject is “directly reliant on a body of flesh and blood.” Grandinetti turns to Wiley and Elam’s theory of synthetic subjectivation, which posits that the subject is constituted not only through social processes, but sociotechnical processes that incorporate machines. Through this lens, machine and deep learning appear to be processes of synthetic subjectivation lacking a bounded, organic body, but capable of incorporating an organic body’s data even after death. Consequently, biological and technological life cycles become impossible to disentangle from each other.

Diving deeper into philosophical questions of self and spirit, Masha Shpolberg and Elizabeth Mears approach a study of life cycles by focusing on how the formal structures of social media platform TikTok—where users can view and share short videos ranging from a few seconds to a minute in length—have been deployed as an invitation for spiritual practice. While seemingly antithetical to contemplation and presence, the act of absentmindedly scrolling through endless bite-sized videos on the app’s algorithmically refreshed feed can be reframed as spiritually meaningful experiences. Shpolberg and Mears examine TikTok accounts that emphasize this sense of ephemerality and flux, in which algorithmic generation reflects “divine providence” when users encounter videos devoted to spiritual

practice. Building off the work of film historian Tom Gunning, the authors argue that TikTok can be seen as a contemporary development of a cinema of attractions, with its frontality of audience address and straightforward demonstrations of spectacle and prowess. Though prior scholarship has investigated the mindfulness industry and the rise of therapeutic digital media, these authors chart new directions by examining TikTok as a unique case study of intentional ephemerality and distracted viewing.

Paige Sarlin also examines the possibilities for self-reflection through the use of digital media. Ruminating on the heartbreaking death toll wrought by COVID-19, police violence, suicide, and overdose, Sarlin explores the limitations of our devices as platforms for mourning given the ongoing risks of in-person gatherings. In this context of travel bans and social distancing, Sarlin advocates for more visual markers and signs for sorrow to “emote, communicate, and connect in the aftermath.” She specifically calls for a crow emoji to enact the role of expressing grief in our shared digital vernacular, to “help index and mediate the ebb and flow of mourning.” Sarlin guides us through our *corvid* imagination, outlining their cultural role as bearers of negative connotations and their observed behaviors enacting funereal-like gatherings. A corvid emoji proposal recently under review by the Unicode Consortium compels us to consider the ways that the emoji might be deployed and the multiplicity of meanings, ideas, and energies it will conjure. As the pandemic has underscored the role of media in mediating grief and isolation, Sarlin’s essay offers a vital proposition for how we process loss with our evolving digital lexicon.

The global consequences of COVID-19 also serve as the backdrop for Kimberly Owczarski’s article, which considers the response by Hollywood studios to the pandemic’s impact on moviegoing. As it turns out, the notion of life cycles is a useful way of describing the window system of film distribution. Even before the pandemic, the ascendance of streaming services, along with broader reconfigurations in the political economy of globalized media industries, has resulted in an ever-shrinking window for theatrical exhibition—traditionally the first stage in the life cycle of a Hollywood film. The pandemic, however, has accelerated and amplified this trend, exacerbating existential anxiety about the future of the movie theater. Owczarski focuses on the case of *Trolls World Tour* (dir. Walt Dohrn and David P. Smith, US, 2020), and Universal’s decision to release the film through VOD services on the very same day of its theatrical release, thereby “collapsing the window system.” While the decision angered exhibitors,

Universal’s ability to distribute the film through Comcast VOD services earned the studio greater revenue than the entire theatrical run of 2016’s *Trolls* (dir. Mike Mitchell and Walt Dohrn, US, 2016). The implications for the life cycle of the Hollywood film are clear: “theatrical business can no longer count on being the primary window for studio-produced content.”

As Oczwarski makes clear, the disruptions to theater-going caused by COVID-19 are only the latest in a history of crises that have forced exhibitors to adapt or risk extinction. Mike Van Esler turns his attention to an older technology that altered the life cycle of the Hollywood film—the VHS tape. In particular, Van Esler is interested in the VHS revival of recent years and its challenge to technological life-cycle (TLC) theory, most often articulated within the worlds of business and administrative sciences. The traditional focus in TLC theory on research and development has not accounted for the ways in which media come back from the dead, even after they’ve been rendered obsolete by new media. The resurgence of analog media formats such as the VHS (not to mention the vinyl record and cassette tape) suggests the need for an additional stage of revival to the traditional TLC model, driven not so much by innovation or technological advancement but by the nostalgic practices of everyday users.

Van Esler isn’t the only one interested in the VHS revival. Prompted by the question of what happens to videos when video stores close, Jeff Scheible explores the fascinating life cycle of *Jerry Maguire* (dir. Cameron Crowe, US, 1996) after its initial release, turning our attention to the assemblage of thousands of VHS tapes into a pyramid structure by artist collective Everything is Terrible! Scheible asks why this movie was chosen in particular, and why it has enjoyed such a striking afterlife. He guides us through a close reading of the racial anxieties of *Jerry Maguire’s* narrative and the reassuring moral values it sustains before examining the incorporation of its footage decades later in the animated *Lego Batman Movie* (dir. Chris McKay, US, 2017). Scheible considers such afterlives of “textual emplacement” as indicative of the plasticity of the film and moves further by arguing that the Pyramid project reflects its plasticity via “material displacement.” Thus, the material detritus of *Jerry Maguire* compels media scholars to recognize the environmental consequences of consumption and accumulation, drawing upon the work of Kathryn Yusoff and Laura Pulido, who both investigate the convergence of the ecological and racialized dimensions of waste. Scheible ends with a call for media scholarship to more

rigorously attend to such environmentally devastating cycles that media so often perpetuates.

Essays by Jeffrey Moro, Samir Bhowmik, and Mona Damluji take up this call to address the environmental and social impact of media life cycles. Moro investigates the site-specific life cycles of DC11, a “peering point” owned by the data center company Equinix in Ashburn, Virginia. Here, alternating rows of hot air vented outwards and cold air piped into server rooms regulate the massive amounts of heat produced by cloud computing. In the event of systems failure, total heat death would only take twenty minutes. Moro thus candidly argues, “air-conditioning keeps the internet alive,” since the life cycles of DC11 rely on the management of air and temperature differentials. He continues this line of argument by suggesting that air-conditioning and the internet are one and the same, joined in a confluence he terms “atmospheric media.” These ideas build upon the work of Mél Hogan, Nicole Starosielski, and Tung-Hui Hu, who have examined the internet’s insatiable demand for energy sources to maintain appropriate levels of temperature and humidity. Sites like DC11 respond by using air as “a medium of securitization” amidst the looming threat of planetary catastrophe, reconfiguring data centers as climate bunkers. As heat death is inevitable, air-conditioning simply delays the problem but never fully eliminates it, serving as a temporary solution to our never-ending thermal crisis.

On a different temporal scale, we experience life cycles of media every time we charge the dying batteries of our mobile devices. In his invited contribution, Samir Bhowmik hones in on one of the key materials in the batteries that power most of our devices—lithium. Specifically, Bhowmik is interested in lithium imaginaries, or how the life cycle of lithium—from its extraction, to its manufacturing, and finally its disposal—is visualized and made comprehensible, especially in order to grasp its environmental implications. Just as in the case of what Rob Nixon describes as slow violence, the problem is finding representational modes capable of capturing “the multi-scalarity and temporalities of Lithium energy production and consumption.” Popular lithium imaginaries—for example, in the form of Tesla’s battery-shaped Gigafactory in the Nevada desert—fail (or perhaps refuse) to grasp the scale of environmental destruction wrought by the lithium life cycle.

Mona Damluji’s invited contribution spotlights the recent resurfacing on social media of *Ageless Iraq* (dir. Graham Wallace, UK, 1954), a film

sponsored by the Iraq Petroleum Company. This documentary, which had been digitized and uploaded to YouTube, was the source material for a viral 2014 *Business Insider* (*BI*) article that presented screenshots from the film to perpetuate a nostalgic, utopian vision of 1950s Iraq. Both the video upload and the *BI* article obscure these images’ origins as part of a corporate narrative meant to export an image of Iraq as a “modernizing and economically robust state” due to its fossil fuel industry. As Damluji argues, this contemporary editorializing of history ultimately upholds an extractive neocolonial fantasy. Damluji argues that such cultural artifacts propagate “positivist myths of oil modernity,” a term she uses that refers to petroleum companies’ efforts to “normalize fossil fuel extraction as fundamental to modernity.” Drawing from the work of Derek Gregory, this decontextualized remediation does political work in the “colonial present” by reifying past colonial violence and recycling Orientalist tropes.

Corporate nostalgia finds a different case study in Anthony Dominguez’s article, which takes us to virtual worlds and the nostalgia packaged and sold to consumers by Blizzard Entertainment in the form of 2019’s *World of Warcraft Classic*, a recreation of the massively popular MMORPG game as it existed before 15 years of expansion packs. The release of an official “vanilla” version of the game followed Blizzard’s takedown of Nostalrius, an unofficial private server dedicated to providing users the original *World of Warcraft* experience. Whether initiated by unauthorized fans or by the company itself, these efforts to recreate virtual worlds of the past inevitably fail. Nostalgia for virtual worlds is not simply a longing for their unmodified code but for an ephemeral sociality that cannot be simulated. Dominguez argues that this longing for virtual spaces, and the impossibility of ever satisfying it, ultimately demonstrate a blurring between the “real” and virtual worlds.

Dominik Schrey takes up nostalgia in a very different way. The association between nostalgia and media technologies in their latter stages of life—when they become old, obsolete, residual—has been explored by various scholars, but Schrey also finds nostalgia at work in earlier stages of a medium’s life cycle. Drawing upon Natale and Balbi’s three-stage model for the life cycle of media (from imaginary, to new, to obsolete media), Schrey argues that nostalgia is an active agent in all three stages, driving technological change and shaping media history. Rather than seeing it strictly as an orientation towards the past, Schrey posits nostalgia as “a historically inverted utopia,” guiding the development of newer technologies that ironically promise to



return us to a less mediated existence. In this way, nostalgia initiates the life cycles of new media technologies.

However, it's not always nostalgia that drives the revival of media forms. Marc Francis develops the concept of formal chronocentrism as a way to understand a wave of recent updates to classic television series that invite audiences to forget their hypotexts. These updates—distinct from remakes—shed the stylistic traces of their source texts in order to match the realist aesthetics of contemporary prestige TV. As Francis demonstrates, the elevation of realist aesthetics as more “raw” or “authentic” is itself recycled from earlier strands of film theory and criticism, but without the commitment to social justice that characterized those movements. Instead, formal chronocentrism in television and film is concerned with questions of taste and quality that effectively ask viewers “to forget the complex and insightful cultural work these past texts did (and even still might do).”

Collectively, these fifteen varied articles demonstrate the diverse ways scholars can interrogate questions of media life cycles, and contribute to a rich field of scholarship dedicated to such themes of temporality, renewal, and circulation. As case studies like the end-of-life cycle of Adobe Flash Player suggest, the purported “end” of a media object can also inaugurate new beginnings and ways of seeing and understanding, as media forms take on new lives entirely.

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## Notes

- 1 Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge: The MIT Press, 1999).
- 2 Garnet Hertz and Jussi Parikka, “Zombie Media: Circuit Bending Media Archaeology into an Art Method,” *Leonardo* 45, no. 5 (2012): 424–430.

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