Beyond the Shallows: 24/7, Network Culture, and Vertical Time in Thomas Pynchon's *Bleeding Edge*

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Abstract
The paper addresses the topic of time experience and temporal representation by studying the complex relations between the digital and the temporal in Pynchon's 2013 novel. It argues that Pynchon, in examining the contemporary coupling of power and technology, is not only concerned with the threats and dangers of the information revolution, but that he also explores the subversive and liberating potentials of new digital technologies, which, among other things, can counterbalance the expansion of the Internet's "shallows" and the global 24/7 paradigm. In its portrayal of our transition from an analogue past to the digital future, *Bleeding Edge* explores the various forms of the present as an alternative to detemporalized instantism. By approaching "the moment and its possibilities", Pynchon's narrative projects a specific form of temporality—"vertical time" that transforms a single now into a long and meaningful duration, and thus resists what Mitchum Huehls calls "the great digital flattening" of our temporal sensibilities at the turn of the 21st century.

Keywords: Thomas Pynchon; technology; digitization; 24/7; internet time; network society; digital culture

1. Introduction

Chapter 32 of *Bleeding Edge* opens with a phone call between Reg Despard, currently in Seattle temping at Microsoft and Maxine Tarnow, reporting on life in NYC after 9/11. Reg, who has been circulating conspiracy-theory DVDs alleging suspicious paramilitary activities linked with the Word Trade Center attacks, remarks: "Someday there' ll be a Napster for videos, it'll be routine to post anything and share it with anybody" (Pynchon 2013*:* 348). To which Maxine responds in disbelief: "How could anybody make money doing that?" (ibid. 349). This short conversation is much more than a cultural reference point or an anachronistic joke. Back in 2001 Napster was a pioneering and groundbreaking software developed by a wunderkind from Cape Cod, which enabled a peer-to-peer sharing service (typically for music files encoded in mp3 format) on a truly global scale. Seventeen years later, what was once a vanguard application is now, to those Internet users who still recognize the name, a piece of obsolete history. Posting videos,

sharing them on social media, and making money on-line have become a part of our daily lives. *Bleeding Edge*, as Michael Jarvis observes in his review, shows us "how quickly the present becomes the unremembered past" (Jarvis 2013: 2) and reinforces "the incredulous realization that it's even been a decade since a millennial era that still feels like 'now'" (ibid. 2). This sense of an unprecedented speeding up of life, or to use James Gleick's phrase, "the acceleration of just about everything", has been caused and conditioned to a great extent by revolutions in information and communication technologies (ICT) leading to the rise of the network society. *Bleeding Edge*, which Joshua Cohen calls "a dizzily profound book of the Internet" (Cohen 2013), portrays the emergence of the new digital culture and chronicles its development. While Pynchon's narrative, with all its specificity, does not shirk politics (NYC under Rudy Giuliani's mayoralty, "the always-lively topic of West Bank Settlements" (Pynchon 2013: 249), the Gulf War, CIA operations in Latin America, Islamic terrorism and many other issues), it appears nevertheless to be more interested in delineating the contemporary coupling of power and technology that has produced capitalist digitality. As Mitchum Huehls puts it, "everything changes not so much because of 9/11 but because of the Internet" (Huehls 2013: 866). Huehls sees *Bleeding Edge* as primarily concerned with "a new conspiracy of technology" (ibid. 866): the emerging technological processes and innovations that reframe the old 20th-century world. Questions about the significance of these new technologies and their impact on individual and collective lives become a central and pressing concern in the novel. Jason Siegel rightly observes that Pynchon is not merely asking whether technologies are technically autonomous or whether they eliminate human agency rather than mediating it, but the novel's focus is on "how computer technologies oppress or liberate individuals" (Siegel 2016: 4), on "the hands that control those technologies, [and on] the uses to which they put them" (ibid. 4-5). *Bleeding Edge* thus articulates "Luddite sorrow" by pointing out how the new technologies are co-opted by governments and corporations, and turned into instruments of domination and control.

If Luddite themes and overtones are something that Pynchon's readers have come to expect, the novel inscribes them in a new context and offers a different take on another key issue in Pynchon's oeuvre, namely paranoid sensibilities. *Bleeding Edge* shows that the structure of contemporary conspiracy and paranoia is not immune to the progressive

digitization and virtualization of the world. As Huehls argues, the vertical form typical of a classical Pynchonian conspiracy, revolving around the elite's concentration of power and capital, is radically flattened in *Bleeding Edge*.[1] While, in previous novels, conspiracy "retains a vertical, surface-depth structure that corresponds to the obscured hierarchies and hidden depths of power" (Huehls 2013: 867), *Bleeding Edge* retains this verticality only to a point, "clearly connecting its peak to a moment in the late 1990s when the dot.com bubble drove the NASDAQ ever upward" (ibid. 867). In other words, the novel gives voice to "the culture's broader desire to recapture some of the verticality that everyone remembers from the 1990s, to reconnect with those depths of meaning that were flattened when the bubble burst and the towers fell" (ibid. 868). Huehls's concept of verticality is explicitly spatial and is signaled early on by a visual pun on the novel's cover, where two long rows of computer servers receding to a vanishing point on the horizon bring to mind, when viewed vertically as receding upward to a vanishing point in the sky, the Twin Towers. The visual arrangement links the technological with the terroristic, suggesting that "[i]n the twenty-first century the verticality of the towers has given way to a receding horizon of technology" (ibid. 868).

And yet, as I argue, this verticality also has a temporal dimension and describes a specific kind of temporality whose time span is not limited to the 1990s, but refers in a more general way to the complexity and intensity of lived time that stands in opposition to the "insistent contemporaneity" and "aggressive attachment to the present" (ibid. 862) that Huehls identifies as characterizing the temporal gestalt of the novel. In what follows I will expand and refine his notion of verticality by locating it within the context of the great digital flattening and acceleration. I argue that Pynchon remains in *Bleeding Edge* keenly aware of the threats and dangers of the information revolution and counters the expansion of detemporalized digital instantism by exploring other forms of the present such as the "long now" or "vertical time" which stretch a single moment into a long and "deep" duration. Drawing

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[1] Siegel likewise notes that even though *Bleeding Edge* shares with the *Crying of Lot 49* a basic plot structure and features a similar female quasi-detective, Pynchon's 2013 novel "is less interested in evolving plausible conspiracy theories about the American government and big business than it is in examining the effects of cyber-technology on the status of the post 9/11 American subject under late capitalism" (Siegel 2016: 2).

on Jonathan Kramer's study, I will discuss these forms and qualities of "nowness" in relation to the complex temporality of network culture. Finally, I will examine Pynchon's "now" against the temporal background constituted by a specific type of retro-consciousness, which Paul Virilio, Andreas Huyssen, Simon Reynolds, and others consider to be central to the formation of new temporal sensibilities at the turn of the 21st century.

2. Deep Web and the Shallows

"The acceleration of just about everything" (Gleick 1999: 3)—the phenomenon which David Harvey recognized in *The Condition of Postmodernity* as "rapidity of time"—has led to a compression of time that effectively erases the distinctions between "here and there", "now and then", and creates, as Paul Virilio contends, "only the mental confusion of near and far, present and future, real and unreal—a mix of history, stories, and the hallucinatory utopia of communication technologies" (Virilio 1995b: 35). This extreme rapidity fundamentally alters our personal, social, and cultural sensibilities by giving primacy to a real time of immediacy and instantaneity. Digital technologies processing information and data at increasingly faster speeds, reaching the speed of light, introduce a cyber perspective that supersedes the perspective of real space that has shaped our aesthetics and sensibilities since its invention by Italian artists in the Quattrocento. Distance in cyberspace is negated and much physical movement is made redundant: commuting is replaced by telecommuting, for example, and a classroom session is replaced by an on-line course. By compressing temporal distances, information and communication technologies create "a new vision of a world that is constantly 'tele-present' twenty-four hours a day, seven days a week, thanks to the artifice of this 'trans-horizon' optics which puts what was previously out of sight on display" (Virilio 2000: 15). The horizon line of Renaissance perspective is thus being replaced with the new "square horizon" of the screen, producing a stereo-reality effect. Our current reality, for Virilio, is made up of two overlapping channels: "the actual reality of immediate appearances" and the virtual reality of "media trans-appearances" (ibid. 15). Unlike stereoscopy or stereophony that distinguish left from right and bass from treble, stereo-reality effects a split that distorts and diminishes our perceptual depth of

field, leading to what Virilio calls "a fundamental loss of orientation" in our dealings with the world and the other.

The encroachment of the digital into the territory of immediate appearances and the resulting penetration of human consciousness by cyber reality are among the recurring themes in Pynchon's novel. Almost all of the characters in *Bleeding Edge* experience a kind of ontological confusion that makes it increasingly difficult to separate these two realities. Even those born and raised in the pre-digital world, such as Maxine Tarnow, are afflicted by this loss of orientation: "Increasingly she's finding it harder to tell 'real' NYC from translations like Zigotisopolis [the virtual city constructed by her two sons] … as if she keeps getting caught in a vortex taking her farther each time into the virtual world" (Pynchon 2013: 260-1). The transition into the virtual might pose even a greater challenge for Pynchon (born in 1937) and his generation. Alexander Nazaryan in his review "Thomas Pynchon Meets His Match: The Internet" claims that the Internet, this vast, ever-expanding, and gleefully self-referential medium, resists even Pynchon's ample literary capacities, and that *Bleeding Edge* ultimately fails to reproduce the state of existing on-line. Nazaryan seems to overlook the fact that Pynchon situates only a relatively small part of the novel in the cyberworld, while its larger part unfolds in "meatspace", i.e. the real, non-virtual world. Thus, *Bleeding Edge* is more likely to reproduce Virillio's stereo reality effect that leads, as Michael Jarvis notes, to "a confusion of real and unreal, of image and referent that the book posits as part of the trauma or spectacle of 9/11" (Jarvis 2013). Furthermore, Pynchon problematizes the phenomenon of the Internet and the network society by reminding us of the Web's democratic and anarchistic dimension, as well as its Cold War genesis: the prototype of the Internet was developed by the Defense Advanced Research Projects Agency (DARPA) in the early 1960s as an information and command-and-control system built to survive a nuclear attack by the Soviet Union.[2] The early Internet's unruly playfulness, ideological idealism and innocence are contrasted with the commercial and political forces transforming present-day cyberspace into a virtual shopping mall and a Big Brother net. The

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[2] The network called ARPANet makes a brief appearance in *Inherent Vice*: "It's a network of computers, Doc, all connected together by phone lines. UCLA, Isla Vista, Stanford. Say there's a file they have up there and you don't, they'll send it right along at fifty thousand characters per second" (Pynchon 2009: 53).

novel's time frame, with its focal event of 9/11, serves as an important political and historical background. As Rob Coley and Dean Lockwood argue, 9/11 was a turning point in the transition of the digital commons into "the new hunting ground for contemporary capital" (Coley and Lockwood 2012: 16): "Technological systems and ideas that were in their infancy prior to 9/11, merely 'lying around' without coherence, were swiftly joined up and rationalized in a way that previously had been politically untenable. 'Suddenly,' Naomi Klein comments, 'the fear of terror was greater than fear of living in a surveillance society'" (ibid. 16-17)[3]. Approaching these issues from a somewhat different theoretical background, Jason Siegel reaches the same conclusion: *Bleeding Edge's* portrayal of its characters as programmable objects within the matrix of economic relationships that constitute global capitalism is in line, in Siegel's view, with Seb Franklin's analysis of control societies. Thus, the novel can be read, Siegel argues, as a critique of utopian posthumanism as represented by Donna Haraway, Rosi Braidotti, and David Roden, who saw in the new digital technologies the hope for positive change and liberation from sexism, racism, and colonial oppression (Siegel 2016: 3-4).

Yet, it appears that *Bleeding Edge*, even in a more general sense, sounds a cautionary note against embracing too hastily what Jonathan Crary terms, "the pseudo-historical formulation of the present as a digital age" (Crary 2014: 36). Such a periodization creates a false sense of historical inevitability and presents many aspects of contemporary social reality as necessary, unalterable circumstances, akin to facts of nature. Efforts to outline the new technological paradigm in terms of an epochal historical shift brought about by information and communication technologies, a shift often theorized as involving a transition from industrial production to postindustrial processes, or from analog to digital media, or a transition from a print-based culture to a global community based on a free circulation of information and data, legitimate the historical break by affirming its continuity with larger patterns and sequences of technological innovation and change. Such impulses to theorize the idea of technological change as quasi-autonomous contribute to "the illusion of a unifying and durable coherence to the many incommensurable constituents of contemporary experience" (ibid. 36).

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[3] See Klein 2007: 303-4.

For Crary, the conceptual and functional parameters of the so-called "digital age" are essentially incompatible with human ways of inhabiting and experiencing the world. To dwell effortlessly and harmoniously in these new digital worlds is not solely, as some new media theorists have suggested, a matter of acquiring a technological competence, skills and knowledge. "There never will be a 'catching up' on either a social or individual basis in relation to continually changing technological requirements" (ibid. 37). The transition into the digital epoch cannot therefore be reduced to "simply passing from one dominant arrangement of machinic and discursive systems to another" (ibid. 38). The key question for Crary is not how the changes of particular operations or elements affect systems but "how the rhythms, speeds, and formats of accelerated and intensified consumption are reshaping experience and perception" (ibid. 39).

The accelerated tempo of technological innovation undermines material and experiential consistency and effectively erases any sense of an extended duration that can be shared collectively. The temporal horizons embracing our 'now' are drastically shortened, as the past is continually superseded and overshadowed by the actualities of the present and the future "so close at hand that it is imaginable only by its continuity with the striving for individual gain or survival in the shallowest of presents" (ibid. 41). Viewed in the broader perspective of Western modernization and neoliberal globalization, this unprecedented speed-up manifests a general tendency to inscribe "human life into duration without breaks, defined by the principle of continuous functioning" (ibid. 8). It announces also a new form of temporality: 24/7 time "that no longer passes, beyond clock time […] a static redundancy that disavows its relation to the rhythmic and periodic textures of human life" (ibid. 8-9). In its ostentatious abandonment of being coupled with any long-term undertakings, even with fantasies of progress or development, 24/7 is much more radical than the "homogenous, empty" time of modernity theorized by Benjamin, Lukács, and others. As the final capitalist mirage of post-history, 24/7 is an expression of the homogenizing force of capitalism that is incompatible with any structure of differentiation and thus incapable of historical change.

In its exploration of this new technological regime, *Bleeding Edge* pays particular attention to what William Gibson has called "Future Fatigue": a transition from the capital-F Future to an overwhelming sense

of atemporality generated by the network culture and society. In his talk at Book Expo America in May 2010, Gibson, speaking about his novel *Zero History,* somewhat self-deprecatingly remarked: "People my age are products of the culture of the capital-F Future. The younger you are, the less you are a product of that. If you're fifteen or so, today, I suspect that you inhabit a sort of endless digital Now, a state of atemporality enabled by our increasingly efficient communal prosthetic memory" (Gibson 2013). He went on to conclude: "The Future, capital-F, be it crystalline city on the hill or radioactive postnuclear wasteland, is gone. Ahead of us, there is merely... more stuff. Events. Some tending to the crystalline, some to the wasteland-y. Stuff: the mixed bag of the quotidian" (ibid.).[4] Pynchon has never ignored the importance of the wastelandy and the quotidian, and while *Bleeding Edge* recognizes the atemporal dimension of the new decade and its new digital grid, it does not stop here. The novel acknowledges also the liberating and creative potential of the network culture and "network time" as an open-ended spectrum of temporalities, to which users bring their own temporal patternings and rythmicities. "The amorphous and constantly emerging network ecology", as Robert Hassan has argued, offers the potential to overcome the domination of capitalist power time (Hassan 2005: 6) and to rediscover the diversity and plurality of timescapes that have been suppressed, displaced and marginalized by industrialized clock time, Pynchon's orthogonal time.[5] Correspondingly, in *Bleeding Edge* Pynchon clearly distinguishes the "deep" digital zones[6] from the shallows, a term

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[4] Gibson's novels, especially *Neuromancer*, are important intertexts for Pynchon's narrative. For a more detailed discussion of Gibson's concept of cyberspace in the context of *Bleeding Edge*, see Siegel 2016: 10-12.

[5] In his *New York Times* essay "Nearer, My Couch, to Thee," Pynchon discusses this form of temporality as emblematic of the mechanized and industrial capitalist order and as antithetical to non-linear and imaginative temporal awareness, which he calls "dream time".

[6] While Pynchon acknowledges their liberating and creative potential, he appears to be much more skeptical than Hassan, who believes that immanent time, as well as the democratic power of the "web" over the "grid", can be harnessed when users make the effort to become both "culturally competent" and technologically sophisticated. They will thus pave the way for a new temporal sensibility, one that comprises diverse timescapes "that are immanent in both us, and the environments with which we interact" (Hassan 2005: 7). The network society, Hassan concludes, "can be a temporally diverse and timescape-rich

he could have borrowed from Nicolas Carr's book, *The Shallows: How The Internet Is Changing the Way We Think, Read and Remember*.

One of the primary sources of the Internet flattening is the massive distribution of what Hubert L. Dreyfus calls "desituated information" readily available on-line and organized horizontally by hyperlinks. The organizing principle in cyberspace is the inter-connectedness of all elements, which erases hierarchies and undermines established authorities. This unruly and spontaneous dimension of web surfing can certainly be liberating, and in its disrespect for tradition, established order, and hierarchy can even be seen as representing an all-American democratic attitude (Dreyfus 2009: 13). As Pynchon himself noted in his 1984 essay, "since 1959 [the date of C.P. Snow's Rede Lecture "The Two Cultures and the Scientific Revolution"], we have come to live among flows of data more vast than anything the world has seen. […] Anybody with the time, literacy and access fee these days can get together with just about any piece of specialized knowledge s/he may need" (Pynchon 1984: 40). Needless to say, the data revolution that Pynchon speaks of has grown and gained in unprecedented strength since 1984, with the digital and the Internet becoming the order of the day. Web surfing, a part of our daily routine in the 21st century, encourages a new form of interaction with information that prioritizes quantity of connections over quality. "Thanks to hyperlinks, meaningful differences have, indeed, been leveled. Relevance and significance have disappeared. And this is an important part of the attraction of the Web. Nothing is too trivial to be included. Nothing is so important that it demands a special place" (Dreyfus 2009: 78-79). The effort is not to connect what is significant but to connect "to as wide a web of information as possible" (ibid. 12). This attitude levels all differences of status and value and erases all qualitative distinctions: "the highly significant and the absolutely trivial are laid together on the information highway" (ibid. 79). Consequently, web surfing leads to "a new form of life in which surprise and wonder are more important than meaning and usefulness" (ibid. 12). The expertise needed to organize and evaluate the available data is thus undermined as anyone, irrespective of her/his experience, skills or knowledge, can enter the conversation on-line.

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network society where hundreds of millions of culturally competent and technologically savvy users of ICTs can shape it into something(s) we haven't yet dreamed of" (ibid. 7).

Many of *Bleeding Edge*'s characters attempt, in one way or another, to resist this great digital flattening and to reconnect with the depths of meaning and the complexities of lived experience. The novel diagnoses, but does not succumb to, the great flattening of the 21st century (Huehls 2013: 870). Driven by "the perennial Luddite ambivalence about machines" (Pynchon 1984: 41), *Bleeding Edge* looks closely at all the pipe dreams inspired by "the computer's ability to get the right data to those whom the data will do the most good", dreams whose realization is a matter only of "the proper deployment of budget and computer time" (ibid. 41), dreams such as Gabriel Ice's futuristic plan to gain control of the natural supplies of cold and to build server farms in the Arctic using "surplus heat to sustain whatever communities grow up around the data centers" (Pynchon 2013: 310).

3. The Temporal Ecology of DeepArcher and Vertical Time

Pynchon's Deep Web, which "thrives on the old distinction between zero and one, between the surface and the meaning hidden above or below" (Huehls 2013: 869), offers a partial escape from the shallows, with their "stupefying consensus about what life is to be" (Pynchon 2013: 51).[7] Its most developed emanation, DeepArcher, is clearly much more than a realm of webpages not indexed by a robot-crawler or a virtual world such as *Second Life*. Like the Hollow Earth in *Against the Day* and *Mason & Dixon*, DeepArcher is another of Pynchon's liminal zones, which provides, at least temporarily, access to "the vertical depth in the radically flattened twenty-first century" (Huehls 2013: 868). Exceeding the possibilities of both the shallow web and meatspace, it is a sanctuary where one can meet hackers, fugitives of all of sorts, and even the 9/11 dead. It is also a zone of dreamtime, where one can imagine other times and experience a parallel existence of unregulated, unorganized, and unsupervised temporalities. "One of the forms of disempowerment within 24/7 environments," as Jonathan Crary has argued "is the incapacitation of daydream or of any mode of absent-minded introspection" (Crary 2014: 88). Crary's argument resonates extremely well with Pynchon's view of disciplinary horology from his *New York Times* essay on sloth. In

[7] Needless to say, Pynchon is well aware that DeepWeb as a digital waste has also its dark sides "beginning with kiddie porn and growing even more toxic from there" (Pynchon 2013: 240).

Bleeding Edge, dreamtime emerges again as a form of resistance to the homogenizing power of the atemporal 24/7, as it reveals the incompatibility of human life with the temporalities of networked systems. Lived time, with its blurred, fractured, meandering forms and its inherent rhythmicity, naturally resists the nearly simultaneous network time, which relentlessly infiltrates and erodes almost every aspect of social and personal life.

In its gesture of resistance against the shallows, DeepArcher resembles, as Jonathan Lethem notes, the Temporary Autonomous Zones (TAZ) of the poet and philosopher Hakim Bey: "a liberated area of 'land, time and imagination' where one can be for something, not just against, and where new ways of being human can be explored and experimented with" (Jordan 2010). While intentionally placed at the margins, a T.A.Z strives to offer maximum intensity: "[l]ocating itself in the cracks and fault lines in the global grid of control and alienation, a T.A.Z. is an eruption of free culture where life is experienced at maximum intensity" (ibid.). A T.A.Z. is inherently dynamic and mobile; when spotted by the state it immediately dissolves and moves on to reappear in unexpected places. Thus, it is best understood as an uprising in the here-and-now. In Pynchon's novel, the temporal ecology of DeepArcher is likewise mobile and fragile; it is effectively disrupted around 9/11. On the evening of September 10th, a back door is installed and DeepArcher is gradually infiltrated and its source code and data compromised. Justin, who together with his business partner Lucas developed DeepArcher as an open-source platform, informs Maxine: "DeepArcher's defenses began to disintegrate, everything was more visible, easier to access. It's possible some people may have found their way in then who shouldn't have" (Pynchon 2013: 341).

Evgeny Morozov, in his review of *Bleeding Edge*, aptly observes that DeepArcher is Pynchon's "nostalgic celebration of what once was, set against the painful realization of what it has become and the still lingering (but rapidly fading away) utopian vision of what it might still be" (Morozov 2013). In my reading of the novel, the fragile temporality of DeepArcher expresses also a yearning for meaningful and creative engagements with time, a yearning for an alternative to the cultural fixation on the flickering now, an alternative to the tyranny of the moment, the hyperrealist time that Virilio, Castells, and Crary warn us about. Inherently atemporal, DeepArcher allows for the exploration and

enjoyment of "the moment and its possibilities".[8] The temporal ecology of DeepArcher shows some affinities with Brian Eno's concept of "the long now", which is capable of recognizing and preserving the unique qualities of a moment as it grows out of the past and becomes a seed for the future. Yet, it seems to me that, with its ostentatious playfulness and its focus on the here-and-now, Pynchon's DeepArcher is more oriented towards a new form of temporality that Jonathan Kramer calls "vertical time".

In his study of musical time Kramer characterizes certain types of contemporary music as "static, unchanging, frozen eternity" (Kramer 1988: 7) capable of stretching a single present into an enormous duration: "a potentially infinite 'now' that nonetheless feels like an instant" (ibid. 55). This temporal experience is invoked by musical compositions in which nonlinearity predominates over linearity and whose structure exists between simultaneous layers of sound rather than between successive gestures. Such a vertically conceived piece lacks large-scale closures, climatic turns, and clearly defined beginnings and ends. "No event depends on any other events. Or, to put it another way, an entire composition is just one large event" (ibid. 55). In order to appreciate such a composition one must give up teleological listening because, in vertical music, linear expectations, implications, cause and effect, antecedents, and consequents do not exist. A non-linear listening strategy allows one "to enter a piece and revel in its sounds" (ibid. 56). Listening to a vertically conceived composition resembles looking at a sculpture as it is we who are responsible for determining the temporal sequence of our viewing. Instead of trying to impose itself on a listener, such a composition "allows a listener to make contact with his or her own subjective temporality" (ibid. 57). In other words, vertical temporality invites the kind of interactive dynamics among diverse timescapes that Adam and Hassan describe. It reveals and actualizes *potential time* as "music allows us to move through time (and allows time to move through us) as we listen" (ibid. 19).[9] In this creative engagement of "deep

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[8] As Pynchon puts it in *Gravity's Rainbow*: "There is the moment, and its possibilities" (Pynchon 1995: 159).
[9] One of the central themes of Kramer's book is reciprocal relation between time and music: "Music unfolds in time. Time unfolds in music" (Kramer 1988: 1). While music primarily becomes meaningful in and through time, it also has a unique ability to model, shape, and create times that lend parallel existence to

listening" we are granted the possibility to "transcend the time the piece takes and enter the time it evokes" (ibid. 7).[10]

A sense of vertical temporality appears to be the lost potential of the temporal ecology of the Deep Web. The gradual infiltration and commercialization of DeepArcher not only undermine its status as a T.A.Z but also illustrate, what Thomas Hylland Eriksen observing the rapid development and contraction of time in digital media calls, "vertical stacking" (Eriksen 2007: 147). Eriksen notes that while ICT bring new information and data, they do not provide us with more time to digest them. Consequently, new data are stacked in layers upon layers, filling every vacant space, with no effort of internal integration: "More and more of every kind of information is stacked, like gigantic Lego towers where the bricks have nothing in common but the fact that they fit (but they also fit with any other brick)" (ibid. 156). What we are left with today, Eriksen concludes, is "a single, overfilled, compressed, eternal moment" (ibid. 157). This new "present", based on a detemporalized digital instantism, is essentially self-contradictory as it is simultaneously expanding and shrinking: "There is both too much and too little present at the same time, a historically novel situation that creates agonizing tensions in our 'structure of feeling,' as Raymond Williams would call it" (Huyssen 2000: 33). Vertical stacking thus appears to be an outcome of the peculiar process of "musealization" that the German philosopher Hermann Lübbe saw as central to the formation of the modern

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both clock-time and ordinary lived time. For a more detailed treatment of "vertical time" and other musical chronotypes, see Chapter 2 in Kramer's book.

[10] T.S. Eliot's "Four Quartets: The Dry Salvages", which Kramer quotes at length, are a poetic record of the kind of watchfulness and momentousness that is evoked by vertical music: "For most of us, there is only the unattended/Moment, the moment in and out of time,/The distraction fit, lost in a shaft of sunlight,/The wild thyme unseen, or the winter lightning/Or the waterfall, or music heard so deeply/That it is not heard at all, but you are the music/While the music lasts" (Eliot qtd. in Kramer 1998: 44). I'm also reminded in this context of two passages from *Gravity's Rainbow* asserting music's ability to introduce "a new kind of time that may have allowed you to miss the rest" (Pynchon 1995: 472) and thus stretch the present into a long now: "The music box still played beyond its running time, it seemed, of an ordinary spring. Their feet moved over clouded, crumbled old glass, torn silks, bones of dead rabbits and kittens. The geometrical path took them along ballooning, ripped arrases, smelling of dust […]" (Pynchon 1995: 283).

sensibilities. No longer bound to the institution of the museum, the process infiltrated all areas of everyday life, installing "an expansive historicism of our contemporary culture" and producing "a cultural present gripped with an unprecedented obsession with the past" (Huyssen 2000: 32). The new temporal sensibilities in the 21st century, Huyssen argues, are the result of the paradigmatic transition from "present futures" that energized modernist culture to "present pasts", with their turn towards memory and archivization. The capital-F future, to extend William Gibbson's claim, has been replaced or rather displaced by lower-case pasts that fill up the present. A characteristic feature of this new *Zeitgeist*, whose origin Huyssen traces back to the 1980s, is a memory fever: an unprecedented obsession with commemoration, documentation, and preservation. "Simply put, the past is selling better than the future. But for how long, one wonders" (ibid. 30).

4. The Zero-One Conflation and the Singularity of the Actual
Simon Reynolds has shown that this past sold exceptionally well, at least for a decade. The first ten years of the new century in music and popular culture, in his view, were strongly influenced by the past and can be best described as the "'Re' Decade": a period whose character was defined by revivals, reissues, remakes, re-enactments, reuniting, and recycling. Network culture and new digital technologies have been decisive for the emergence of the new retro-consciousness: "Not only has there never been before a society obsessed with the cultural artifacts of its immediate past, but there has never before been a society that is able to access the immediate past so easily and so copiously" (Reynolds 2011: xxi). Consequently, the past in the "'Re' Decade" has immeasurably and insidiously infiltrated the present: "Old stuff either directly permeates the present, or lurks just beneath the surface of the current in the form of on-screen windows to other times" (ibid. 57). *Bleeding Edge* captures this retro-consciousness in the novel's numerous pop-cultural references and allusions. The paradoxical temporality of the near past infiltrating the present is perhaps most clearly visible in Chapter 28, which features a New Year's Eve Party that celebrates the beginning of the year 2001. "One cannot help noticing a certain emphasis tonight on instant nostalgia. Nineties irony, a little past its sell-by date, is in full bloom again down here" (Pynchon 2013: 301). Pynchon's *instant nostalgia* reflects both the

unprecedented acceleration of time and the insidious erosion of "nowness".

> The theme of the gathering, officially "1999," has a darker subtext of Denial. It soon becomes clear that everybody's pretending for tonight that they're still in the pre-crash fantasy years, dancing in the shadow of last year's dreaded Y2K, now safely history, but according to this consensual delusion not quite upon them yet, with all here remaining freeze-framed back at the Cinderella moment of midnight of the millennium when in the next nanosecond the world's computers will fail to increment the year correctly and bring down the Apocalypse. (ibid. 301)

The new retro-consciousness coupled with this memory boom, Reynolds contends, has brought upon us the crisis of over-documentation: "We've become victims of our ever-increasing capacity to store, organize, instantly access, and share vast amount of cultural data" (Reynolds 2011: xxi). Reynolds's argument confirms and develops Jacques Derrida's diagnosis of modern times as afflicted by "archive fever". Commenting on the ubiquity and wide availability of digital recording devices in the '90s, Derrida draws our attention to the peculiar temporal modality that they generate. By enabling us to record every moment as if it was already the past, these technologies affect our sense of now. When mediated through the lens of a digital camera, the present is already being imagined as an element of the archived past in the future. "This leads to a curious hollowing-out of present experience, as it is constantly projected into a future-preterite structure (i.e. 'this moment will have been')" (West-Pavlov 2013: 144). This asymmetrical relationship among past, present, and future disturbs in turn the "relationship of representation as a present event is recorded *in order* to archive it; the intended archivization determines the selection of the moments deemed worthy of archivization; thus the future-past actually governs, in the very moment of its happening, what constitutes the present" (ibid. 144, emphasis in original).

Sifting through the materials uploaded onto March Kelleher's website and the commentaries they have triggered, Maxine Tarnow senses the mounting crisis caused by digital archivization and realizes how "[t]he Internet has erupted into a Mardi Gras for paranoids and trolls, a pandemonium of commentary there may not be time in the projected age of the universe to read all the way through, even with deletions for violating protocol, plus home videos and audio tracks [...]" (Pynchon 2013: 388-9). This passage captures the new temporal sensibilities of the Web Age characterized by a paradoxical combination of speed and

standstill:

> Into the chasm between these two poles drops both the recent past and what you might call 'the long present': trends with staying power, bands with careers longer than an album, subcultures and movements as opposed to fads and flavours. The recent past drops away into an amnesiac void, while the long present gets chiselled down to wafer-width, simply because of the incredible pace with which the pages of the current and the topical are refreshed. (Reynolds 2011: 63)

The Internet, Reynolds concludes, fragments our sense of presence in the present and attacks our ability to focus on and be in the here-and-now. "[O]ur sense of temporality [generated by the Internet] grows ever more brittle and inconstant: restlessly snacking on data bytes, we flit fitfully in search of the next instant sugar rush" (ibid. 61).

It is no news to Pynchon's characters that prolonged "on-line exposure" can be addictive. Back in the late '60s, Fritz Drybeam, head of the Searches and Settlements agency in *Inherent Vice*, is trying to surf "the wave of the future" by making use of the ARPAnet. The system is still, as the computer-savvy Sparky explains, experimental but "moving so fast, like the more we know, the more we know, you can almost see it change one day to the next." (Pynchon 2009: 365). The ARPAnet trips, as Fritz calls them, not only eat up his time but also powerfully affect his perception of it. He compares being on the network to doing psychedelics: "I swear it's like acid, a whole 'nother strange world— time, space, all that shit" (ibid. 54). Afraid that the ARPAnet can take his soul, Fritz goes back to the world of flesh and blood. In Sparky's eyes, Fritz's reaction is nothing but irrational Hippie hysteria as "[t]he system has no use for souls. Not how it works at all. Even this thing about going into other people's lives? it isn't like some Eastern trip of absorbing into a collective consciousness. It's only finding stuff out that somebody else didn't think you were going to" (ibid. 365). The ARPAnet, as Sparky notes, is utterly logical, without any metaphysics; it is a system that uses binary code for storing and processing data: "It's all data. Ones and zeros. All recoverable. Eternally present" ((ibid. 365). As Aden Evens reminds us, the digital, as code made up of strings of 0s and 1s, is a powerful kind of abstraction: "To treat something as digital is to operate on form as the digital turns everything into in*form*ation. Digital storage, digital images, programs, sounds, data, text, all come as a list of digits, each of which is on-or-off, yes-or-no" (Evens 2005: 66, emphasis in original). Binary logic

is inherently reductive as it separates bits from each other, places them linearly and assigns them a value (each bit is either 0 or 1).

> The digital captures the general, the representable, the repeatable, but leaves out the singular, the unique, the immediate: whatever is not formal. Actuality always exceeds its form, for it moves along lines that connect singularities; the actual is not a neat sequence of frozen or static moments but an irreducible complex process that cannot be cleanly articulated in time or space. (ibid. 66)

In digital rendition the actual world of continuously varying qualities is flattened or de-formed as the digital "erases the difference of quality in favor of the stasis and consistency of an exact and determinate quantity" (ibid. 70). While the form is universally applicable, it leaves out everything that lies behind its distinct thresholds. This "filtering" also changes the sense of control in more general terms. As Coley and Lockwood point out, discipline in the technologically developed societies of the 21st century is no longer represented by a vision machine, Bentham's panopticon from Foucault's influential account about the structuring of power hierarchies in the modern capitalist state, but by a sorting, computing machine, whose functionality is defined by the ability to accumulate, to sort and order knowledge. Consequently, control in the digital context is directly concerned not so much with bodies as with the data patterns they generate. The focus is thus shifted from the bodily individual to his or her digital rendition: "I am ghosted by my data double—it's not *me*, the individual, that is at issue, it is the non-conscious agency of my data ghost, the 'dividual', as Deleuze puts it" (Coley and Lockwood 2012: 19, emphasis in original). Control does not consist in physically confining and enframing bodies, but in modulating them indirectly: "It is a form of power which works through the manipulation of the flows which move bodies, and the threshold […] they must cross" (ibid. 19). Pynchon outlines these new disciplinary practices by presenting the "still unmessed-with country" (Pynchon 2013: 241) of cyberspace, DeepArcher threatened by the approaching capitalist colonization.[11] Visiting this "sub-spider country" (ibid. 240), Maxine learns that its bright days of unconstrained liberty may soon be over:

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[11] The system can also promise, as Pynchon put it in his introduction to Orwell's *Nineteen Eighty-Four*, "social control on a scale those quaint old 20th-century tyrants with their goofy moustaches could only dream about" (Pynchon 2003: xvi).

> [S]ummer will end all too soon, once they get down here, everything'll be suburbanized faster than you can say 'late capitalism.' Then it'll be just like up there in the shallows. Link by link, they'll bring it all under control, safe and respectable. Churches on every corner. Licenses in all the saloons. Anybody still wants his freedom'll have to saddle up and head somewhere else. (ibid. 241)

This kind of development has been indicated already in *Inherent Vice*, which portrays the end of the '60s—"this little parenthesis of light" (ibid. 254)—and the transition into the dark '70s. Remarking on the limited possibilities of the ARPAnet, Sparky explains to Doc Sportello, "Down here in real life, compared to what you see in spy movies and TV, we're still nowhere near that speed or capacity, even the infrared and night vision they're using in Vietnam is still a long way from X-Ray Specs, but it all moves exponentially, and someday everybody's gonna wake up to find they're under surveillance they can't escape. Skips won't be able to skip no more, maybe by then there'll be no place to skip to" (Pynchon 2009: 365). To put it another way, the system will culminate in the state of permanent illumination necessary for the non-stop operation of global circulation and exchange, and thus pave the way for what Crary calls the "all-illuminated 24/7 world without shadows" (Crary 2014: 9).[12]

In its portrayal of the network society *Bleeding Edge* does not, however, pass either/or (or perhaps it might be more appropriate to say "zero/one") judgments. The novel does not limit itself to the perspective from which the Internet is viewed as merely "absorbing energy, eating up our precious time" (Pynchon 2013: 420), a cliché that Ernie Tarnow, Maxine's father, repeats.[13] It recognizes other forms of engagement with time and yet remains somewhat skeptical of their potential to shape, suspend or transcend time. While, on the one hand, the Web generates an overwhelming sense of atemporality, "that mysterious exemption from time which produces most Internet content" (Pynchon 2013: 428), on the other hand, it "makes the present porous with wormholes into the past" (Reynolds 2011: 72). Paradoxically, these wormholes do not allow one to move back in time but to travel sideways in the cyberspace.[14] "The

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[12] For a discussion of Pynchon's economies and of money as a symbolic structure behind reality, see Pöhlmann 2016.

[13] Idleness, as Pynchon reminds us in his *New York Times* essay on sloth, can be creative and in its own peculiar way even productive, especially for writers, artists, and other creative types.

[14] The theme of time travel, like in the previous Pynchon novels, is also

crucial point about the journeys through time that YouTube and the Internet in general enable is that people are not really going backwards at all. They are going sideways, moving laterally within an archival plane of space-time" (Reynolds 85). Consequently, the distinction between the past and the present, between "then" and "now", loses much of its temporal validity: "The Internet places the remote past and the exotic present side by side. Equally accessible, they become the same thing: far, yet near… old yet *now*" (85; emphasis in original). In a networked temporality breadth wins over depth (Reynolds 2011: 127). In this constantly illuminated and commercialized 24/7 environment it becomes increasingly difficult to experience other forms of temporality such as vertical time, which appears to be one of the lost or misused potentials of the DeepArcher. And yet this form of temporality is not entirely absent in Pynchon's narrative: it is in meatspace that some characters experience those rare, kairotic[15] moments of the long and deep now that save them, however temporarily, from "collapsing into the single present tense" (Pynchon 2013: 374), from "being trapped in a fucking time warp or something" (ibid. 336). The New Year's Eve party in Chapter 28 offers a brief release from the digitized version of the orthogonal time of sales, efficiency, and productivity:

> If there's business being talked tonight, it's someplace else in town, where time is too valuable to waste on partying. [...] Later those who were here will remember mostly how vertical it all was. The stairwells, the elevators, the atria, the shadows that seem to plunge from overhead in repeated assaults on the gatherings and ungatherings beneath … the dancers semi-stunned, out under the strobing, not dancing exactly, more like standing in one place and moving up and down in time to the music. (ibid. 303).

This "bright commotion of temporal aliasing" (ibid. 304) offers an

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prominent in *Bleeding Edge*. It is a subject that deserves an essay of its own. Let me just note in passing that the idea of time travel in *Bleeding Edge* does not appear to be a way of fully controlling or transcending time: "Time travel, as it turns out, is not for civilian tourists, you don't just climb into a machine, you have to do it from inside out, with your mind and body, and navigating Time is an unforgiving discipline. It requires years of pain, hard labor, and loss, and there is no redemption—of, or from, anything" (Pynchon 2013: 242).

[15] 'Kairotic' in the sense of 'time-evoking' "some inner alertness or tension" that Pynchon refers to in his essay on sloth.

alternative to the spongy and mushy digital present of the shallows, restoring some of the fullness of being here and now.

Interestingly, Pynchon uses a technical term to characterize the experience of lived time. In video and cinematography, temporal aliasing is a phenomenon caused by the limited frame-rate, a limitation that prevents capture of the full spectrum of frequencies of motion. The aliasing can appear in nearly any situation where fast movement is recorded. Its most common and popular manifestation is the so-called wagon-wheel effect: Recorded by a motion-picture camera, a rapidly moving wagon wheel appears to move slowly, stop, or even reverse direction. This effect is the result of higher frequencies being aliased or "falsely" shifted by a camera to appear at different frequencies. Such temporal aliasing is one of the video-time strategies that Pynchon briefly discusses in his *New York Times* essay on sloth, strategies that allow one to engage playfully with time and resist the disciplinary temporal orthogonality. Video-time's ability to register some of the peculiar qualities of nowness that penetrate deep, can rescue at least some of the verticality from the surface Web and prevent "the present from becoming a foreign country" (Reynolds 2011: xxvi).

The search for verticality in *Bleeding Edge* thus emerges as a longing for the singularity of the actual, for the unique, irreplicable texture of lived time with all its noises, bodily interferences and imperfections.[16] It is also a mode of resistance against digital ordering, which cannot render "a productive difference, a not-yet-determined, an ontological fuzziness inherent to actuality itself" (Evens 2005: 70). The incessant presentism of 24/7 not only collapses the future and the past, but also destroys the present moment's virtuality as it cannot approach time as a field of potentialities, with each moment having its of own set of possible events that could take place in it. Digitization impoverishes our experience of the world not merely by eliminating the excitement of fleshly human contact, but by obliterating the singularity of the live by its binary

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[16] Pynchon's preference for old analog technologies (FM radios, analog watches and clocks etc) is not merely sentimentalism but suggests a preference for more "physical", robust channels of access to reality; not only do such channels not conceal their materiality, but they also leave ample space for the unpredictable and the accidental. The analog, unlike "a digital datum [that] holds nothing back, no margin or fringe of uncertainty" (Evens 2005: 71), is more open to both to the creative difference and the ambiguity of the actual.

formalism. In other words, it hollows out our experience by a pure formality that kills the productive ambiguity of the actual. 24/7 is therefore inherently inimical to the subjunctive yearning for the "impossible possibility", which creates a tension between a desire for revelation and a mocking rhetoric of irreversibility that so often animates Pynchon's work (Ickstadt 1999: 567).

In its gesture of resistance to "culture's capitulation to the zero-one conflation" (Huehls 2013: 870), *Bleeding Edge* is another of Pynchon's Luddite novels directed against, among other things, the disciplinary one-dimensionality of time that despoils "the rich textures and indeterminations of human life" (Crary 2014: 31). It opposes the relentless incursions of 24/7 temporality into both social and personal lives and expresses a longing for the richness and complexity of time as experienced in a wide temporal spectrum and on all possible levels. In a nutshell, Pynchon's Luddism in *Bleeding Edge* aims to reveal the blunt edges of the technologies that dominate our 21st-century world. It militates against narrowing our daily experience to predetermined sets of possibilities, against the digital homogenization of our experience that kills the experience itself and offers instead "the same formalities, the same possibilities, the same pseudo-creativity" (Evens 2005: 81). *Bleeding Edge* also reminds us that the damage done to our temporal ecology, our chronodiversity might be irreversible. If we remain oblivious to these destructive processes and leave them to run unchecked, then as Virilio puts it in *Open Sky*, "[o]ne day the day will come when the day won't come" (Virilio 2008: 1).

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