



The Rhetorical Question Concerning Glitch

Casey Boyle

University of Texas at Austin, Department of Rhetoric and Writing, 208 W. 21st Street, B5500, Austin, Texas 78712, United States

Abstract

This article proposes that glitches and what has become known as *glitch art* offer models for expanding our current, critical approaches to rhetoric, especially as those practices concern mediation. Toward this end, this article surveys rhetorical practice as it follows Richard Lanham's (1993) concept of the bi-stable oscillation (looking at/looking through); examines recent scholarship that troubles critical approaches to mediation; responds by developing a *metastable orientation* for rhetoric by turning to Gilbert Simondon's (2009) concepts of individuation and metastability; locates in emerging glitch media art an informative model for practicing an expansive engagement with mediation; and, finally, concludes with a brief comment on glitch's implications for rhetorical theory and practice.

© 2015 Elsevier Inc. All rights reserved.

Keywords: Mediation; Glitch; Practice; Rhetoric; Metastable orientation; Gilbert Simondon; Individuation; Richard Lanham

One and the same material object can figure in an indefinitely large number of processes at once.

—William James, *Essays in Radical Empiricism*

“Dear %FIRSTNAME%”

Several members of the National Council of Teachers of English (NCTE) found themselves addressed by the salutation above in an email sent on June 11, 2012. Obviously, we read the salutation as a mistake, most likely the result of a communication error, a *glitch*, between the email application and the database where the membership information was stored. As most glitches go, this was relatively benign. Although it didn't crash the system, it was enough to make that system known. In what was to be an introduction to that organization's new “member liaison” (the communiqué's actual purpose) the email's automation misstep introduced its membership to a different sort of *in-between*.

Being members of groups like NCTE, we are somewhat aware of the impersonal arrangement, but we accept the pretense anyway. It is only when the system fails to function as anticipated or when some occurrence foregrounds the means of its mediation that we feel compelled to comment on or even notice the arrangement at all. We are, however, getting a lot of practice in noticing such things. As we rely more heavily on networked and digital mediation to manage our individual and collective activities, it is becoming a commonplace occurrence to fall out of step with our mediations through small mistakes, errors, and malfunctions. For instance, during the drafting of this article, several glitches made news: a widely-reported glitch occurred in the algorithmic software infrastructure of the stock market, sending stock trades toward volatile swings; a state's online course management system for its higher education institutions malfunctioned, granting instructor-level access to its students; and Apple's much heralded iOS6 unveiled an error-ridden new map application, frustrating the many early adopters of the company's new offering. With each occasion, an *in-between* ceased to be a transparent mediation and revealed itself as something that manipulates and as something that can be manipulated.

Current digital rhetorics along with many traditional rhetorical practices cherish glitch-like events like those I mention here because they offer a possibility to render *apparent* that which is *transparent* by design. When we are positioned to pay attention to *in-betweens*, especially the mediation work of interfaces and infrastructures, we often come to better understand how those *in-betweens* help configure our personal, academic, professional, and civic practices. The field's desire to understand technological mediation and to overcome its designed transparency was made quite clear in a recent *Computers and Composition* special issue concerning the interface. Joel Haefner (2009), in his editor's introduction, claimed that "[a]ccepting the concept of transparency, accommodating the idea of a transparent interface without question or examination, is actually a dangerous course" (p. 135). Tolerating transparency is dangerous, he continued, because of the "epistemological dimension" of interfaces that "inherently influence the way we think (and feel and act) because they provide frameworks for how we organize knowledge and what we can do with it" (p. 136). By foregrounding that which usually resides in the background, Haefner rightly emphasized the role that interfaces broadly construed play in our knowledge practices. This practice of foregrounding afforded by glitches is well supported in rhetorical scholarship as instances in which we attend to those transparent mechanisms through conscious and critical awareness. In this light, one can see much of contemporary rhetorical practice as the practice of creating glitch-like moments in that these critical occasions reveal and foreground knowledge of otherwise transparent structures enacted with our software, infrastructure, and technological policies throughout our institutions. However, before simply collapsing glitch and critical engagement and considering the matter finished, we might benefit from posing a question concerning the rhetorical opportunity that glitch offers: *Is the practice of foregrounding our only rhetorical practice available?*

In many senses, the task of organizing knowledge is only one of the functions of an email database, stock market software infrastructure, an education course management system (CMS), and geographic information system (GIS) mapping networks. Each of these interfaces and their extended infrastructures also shape and manage ensembles of actors. When these mediations falter, they also pose the risk and promise of reconfiguring those ensembles. Speaking toward these possibilities, Alex Reid proposed in his 2012 Computers and Writing Conference keynote talk that we understand the effects of technological glitches as not just epistemological but as ontological. Reid built on traditional rhetorical approaches, like those exhibited by Haefner (2009), by recognizing the capacity of glitches to direct our conscious attention to the boundaries between agents operating at the levels of the physical, discursive, and biological. We understand that when a glitch occurs, we get a sense of the enduring relationships between policy and practice, local and global, human and nonhuman. What we might consider as disruptive features, however, provide views that can only ever be partial because another function of glitch, Reid proposed, is not just a reminder of the boundaries of epistemological organization but also key "ontological conditions." Reid further posited that we understand "glitches as compositional objections that might tell us something about the world we inhabit" (2012, para. 22). When these objections and glitches occur, Reid argued, they are not only reminders of the boundaries of competing agents but also a "source of agency" that recirculates and redistributes potentials in those moments of incompatibility that glitches afford.

Reid's consideration of ontology—ways of being in addition to ways of knowing—echoed recent work by Katherine Hayles (2012) that directly engaged the effects of technology and mediation. Hayles suggested that we come to understand technological mediation not as epistemic or even strictly as ontological but as "technogenetic" or as an ongoing, mutual evolution occurring between different milieus of the biological, psycho-social, and technological. Informed by the work of such thinkers as Gilbert Simondon, Bruno Latour, Nigel Thrift, and Adrian Mackenzie, Hayles claimed new approaches to mediation should attempt to forge relations with technology that account for "a shift from *seeing* technical objects as static entities to conceptualizing them as temporary coalescences in fields of conflicting and cooperating forces" (2012, p. 86, emphasis added). Ultimately, Hayles argued that our practices of mediation unfold through embodied interactions, relying on what Thrift called a *technological unconscious*, and that "it is difficult to establish clear-cut boundaries between technical ensembles and the society that creates it" (2012, pp. 86–87). Hayles's exploration of collectives and *technogenesis* followed her earlier work that explored media effects on individuals and their cognitive structures (2005; 2007). These earlier works made the case that interactions with new media actually affect physiological brain functions (synaptogenesis), and these arguments further blurred divides between the biological human and nonhuman technology. Building on these provocations offered by Reid and Hayles, then, we are compelled to reorient our rhetorical practices in a manner that exceeds what we can see or consciously know. Working with glitch as a model exercise, we can begin to also consider rhetorical practice as knowledge we *do*. One way rhetoric's *doing* can be understood is as a mutual practice between human and nonhuman, an ongoing,



Figure 1. Satromizer operating system—sOS.

co-operative mediation. Such orientations are needed as we continue to group ourselves with wider and in more novel collectives. It is toward developing such an orientation for rhetorical theory and practice that I explore here.

In this article, I propose that glitches and glitch art offer models to expand our current, critical rhetorical practices. Toward this end, the remaining article is organized as follows. First, I overview current rhetorical practice as it follows Richard Lanham's (1993) bi-stable oscillation, his early response to then emerging digital mediation. I argue that Lanham's response strengthened and extended a manner of critical engagement that relied on epistemological foregrounding as rhetoric's primary activity. Second, I show how recent scholarship has called into question Lanham's heuristic, as networked and digital media have become more expansive and pervasive. Third, in response to this recent scholarship troubling those simple divides between the human and media, I turn to Gilbert Simondon's (2009) concept of individuation as a way to elaborate Lanham's heuristic, helping to develop what I will call a *metastable orientation*. By expanding Lanham's concept, through Simondon, Katherine Hayles (2005; 2007; 2012), Bruno Latour (2011; 2013), and others, I argue that an oscillation between human subject (figure) and technical object (ground) provides only one of our available responses to contemporary media and that a rhetorical practice grounded through *metastability* would understand all mediation and any glitches as generative and not as errors to be corrected. I then offer a series of practical demonstrations for a metastable orientation by turning to emerging glitch media art as offering a model that can help inform rhetorical practice and pedagogy. In particular, I am interested in responding to the provocation posed by media artists Jon Satrom and Ben Syverson (Figure 1). In a promotional video for sOS—their intentionally corrupted version of Apple's mobile operating system—faux spokesperson Ben Syverson said: “[o]nce you open yourself up to the possibilities of a 100% problem-based operating system, you really start to see that anything is possible” (Pox Party, 2010).

Although the statement is made partially in jest, it nevertheless invites an engagement with mediation in a manner irreducible to practices of epistemological foregrounding, a manner I will argue that we can encourage by developing a metastable orientation. If we consider, from the start, any and all mediation as already problem-based and always in need of resolution, then we are compelled to reorient our current rhetorical practices. Following a series of examples that extend Satrom's invitation, I conclude with a brief comment on the implications that adopting a metastable orientation provides rhetorical theory and practice.

1. From a bi-stable oscillation

The term *prescient* is often, and with good reason, used when referring to Richard Lanham. Written in the late 1980's and early 1990's, Lanham's *The Electronic Word* (1993) foresaw many rhetorical implications that then emerging writing technologies would have on our understanding of mediation. Lanham quickly recognized that digital technologies

extended practices to the individual writer once reserved for networks of writers, editors, printers, publishers, and distributors. For writers habituated to handwriting and typewriters, the emergence of personal computers and word processing offered many more production options for generating texts than with which writers were previously accustomed. Not only did the writer now have more options when writing, but they were also afforded positions to see texts differently. To say this in another way, the arrival of new technologies—word processing and screen reading—occasioned a disruption, not unlike a glitch, in traditional writing practices that then helped writers foreground and consciously notice mediation in productive ways.

In response to the effects of emerging media, Lanham claimed that “[t]he textual surface has become permanently bi-stable. We are always looking AT it and then THROUGH it. . .” (1993, p. 6). Lanham, in describing a new attention to media in general, introduced the concept of the “bi-stable oscillation,” a heuristic through which one intentionally oscillated between being consciously aware of a medium’s capabilities and the unconscious use of that medium. To put it a bit differently, the bi-stable oscillation—a tactic Lanham located at the heart of the rhetorical tradition—forged a position from which one could look *at* a text’s mediation/style or from which one could look *through* a text for its content and meaning. Lanham here took advantage of a disruption occurring in the practice of writing to develop and codify a simple heuristic to help us better know the range and effects of our uses (and abuses) of media.

Not unlike the opening examples, Lanham encountered emerging media that created disruptive occasions and allowed its users to see their mediation habits under a new light. Unlike the opening examples, however, these disruptions occurred not through malfunction but through innovation and the differences those technological innovations foregrounded. Such innovations, however, cannot always be counted on to foreground mediation. Bernard Stiegler (1998) warned that “in day-to-day technical reality, we cannot spontaneously distinguish the long-term processes of transformation from spectacular but fleeting technical innovations” (p. 21). These “spectacular innovations” elide our ability to understand any particular technological mediation before another replaces it. Further, the problem of spectacular innovation is compounded when we consider that most producers of contemporary technology actively attempt to conceal their innovative products. We become aware of this desire in that most technology is designed to be *seamless*, *intuitive*, or *just work*. These considerations make it advantageous, as a recent *Computers and Composition* article recommended, to involve human computer interaction (HCI) practices in rhetorical pedagogy, practices that provide students an opportunity to understand the complicated relationships between technology and audience (Rosinski & Squire, 2009).

Given these related problems of spectacular innovation and concealment, both of which prevent moments of critical foregrounding offered by glitches and other disruptions, Lanham’s bi-stable oscillation has proven to be a durable description of and prescription for rhetorical engagement with media. Lanham situates the bi-stable oscillation as central to the Western tradition of critical thinking and not simple word play when he defended its use because “[d]econstructionists have made of the binary oscillation central to Western *decorum* a desperate affair. It is not a desperate affair; it is an error-checking operation” (1993, p. 84). In linking the bi-stable oscillation to an underlying “Western decorum,” Lanham argued that an ability to see at and through is fundamental to a rhetorical manner of being. Thus, a bi-stable oscillation that encourages a practice of *looking at* in addition to the default of *looking through* can be understood as subtending our general practices of critical thought and rhetorical education. Critical appeals seen as “error-checking” can be seen as readily apparent in a host of the field’s scholarship, beginning with critically engaging the boundaries of a colonizing interface (Selfe & Selfe, 1994); an institution’s wider infrastructure (DeVoss, Cushman, & Grabill, 2005; Selber, 2009; Brown et al., 2012); pedagogy and curricula (Yancey, 2004); classroom spaces (Walls, Schopierey, & DeVoss, 2009); social network protocols (Gehl, 2012); and interactions between human bodies and media (McCorkle, 2012). Taken together, these scholars share Lanham’s desire to error-check media by rendering visible otherwise nonvisible software, hardware, pedagogies, infrastructure, policies, and organizations. Thus, alongside Lanham’s at and through bi-stable oscillation, critical engagement seeks to develop techniques that help users see, recognize, and anticipate the affordances and constraints of media and resist those mediations that may limit or unduly determine a user’s capabilities and intentions. In all, the bi-stable oscillation culminates in a critical practice that seeks to prevent media users from technological determination so often found in ready-made, template-based user interfaces or, as Kristin Arola (2010) succinctly put it, to keep users from “becom[ing] the invention of the template” (p. 12).

If we are not afforded glitches, in the now traditional sense, that breakdown and disrupt our technological systems, then the rhetorician’s task, as we currently understand it, becomes developing practices and techniques that create distanced positions from which we can critically respond. In fact, adding to the critical scholarship noted before,

several other media scholars have developed heuristics quite similar to Lanham's bi-stable oscillation. For instance, [Jay Bolter and Richard Grusin \(2000\)](#) explicitly built on Lanham's work when they developed their concept of *remediation*, a process through which media emerge from prior media between interplays of *immediacy* (longstanding media whose functions have become transparent) and *hypermediacy* (emerging media whose newness foreground its features). Another example is [Lev Manovich's \(2001\)](#) notion of *transcoding* or the ways that computing culture (codes) and human culture (interpretation) are distinct but not separable interactions that help govern innovation and adaptation. [Jay Bolter and Diane Gromola's \(2003\)](#) *window* and *mirror* offer another oscillating concept for engaging medial innovation, especially computing, by structuring adaptation in technological design to allow for users to more consciously appropriate technological innovations. Each version of the bi-stable oscillation (and accompanying critical scholarship) takes into account a wider media expanse than the one before, but each preserves the role of the user as a relatively stable actor whose prior separation from technological innovation affords it a position of critical engagement. This presumed separation between media and media user continues to reinvest in the same dynamic that oscillates between seeing a foreground and background, a continuation of Lanham's overall "Western decorum." Because media and its use also affect our ontological registers, which is to say that media helps organize what we do and not only what we know, this dynamic of seeing as a base for our current, critical rhetoric poses an issue if we are to consider mediation's effects beyond only epistemological registers.

2. Through multi-stable oscillations

As previously described, critical strategies seek to render mediation visible, and these strategies constitute much of what we understand to be the aims of practicing a critical rhetoric. But, seeing is not without its limitations. By continuing to practice a form of critical engagement that pits a foreground against a background—even when we oscillate between the two—we unwisely limit our available means of response to only those positions that assume critical distance from the conditions in which we are embedded. Several scholars have begun to question these assumptions. For instance, the ongoing negotiation between visible and non-visible aspects of mediation concerned [Wysocki and Jasken \(2004\)](#). They argued that "[w]e have to see interfaces as not just what is on screen but also what is beyond and around the screen" (p. 36). Wysocki and Jasken acknowledged the tensions that emerge when vision becomes the dominant metaphor for knowledge, and their overall project attempted to develop a way of knowing that pushes against the limits assumed when sight becomes the dominant metaphor of rhetorical practice. In the end, they argued for the need to broaden our notion of seeing and our knowledge of interfaces as not just the "border between computers and us but the border between us and us" (p. 45).

In a later project, [Wysocki \(2012\)](#) incorporated this broader notion of sense when she claimed mediation to be embodied practices that are "not fixed; they are mutable" (p. 4). Wysocki turned to philosophers Martin Heidegger and Maurice Merleau-Ponty to inform a more expansive notion of mediation. From Heidegger, Wysocki pointed out his own bi-stable oscillation of *ready-to-hand* and *present-at-hand* as a change in attitude between one's use of a hammer and one's awareness of that hammer when it breaks. Much like the work described before showing malfunction and glitch as occasions that foreground transparent structures of mediation, a present-at-hand moment allows for one's attention to recognize what might otherwise be taken for granted in the process of any practice. Wysocki complicated this attitudinal approach to mediation by turning to Maurice Merleau-Ponty, a thinker for whom embodiment (and technology) was not a separate object with which one can engage, but something through which one is *always* already inhabiting. Merleau-Ponty offered a good base for rethinking mediation and ontology in general in that, as [Diana Coole \(2010\)](#) characterized, his project argued for "conceptualizing an embodied humanity enveloped in nature, rather than as external to inert stuff it dominates" (Coole, 2010, p. 113). Working from this philosophical positioning, Wysocki gestured further towards more dynamic relationships within mediation:

Not only does a hammer or a piece of writing, for example, enable us to extend our reach but it also modifies our sense of engagement: it shifts how we feel what is around us or how we sense those with whom we communicate; our senses reflex and shift in response to these mediated engagements, and in further response we modify our media toward our shifting ends. (2012, p. 4)

Implicit in Wysocki's account of us as "always already embedded—embodied—in mediation" is a knowing not reducible to the single sense of sight (2012, p. 4). From Wysocki, we find it difficult to stand back and assess any particular medium, even in moments of rupture or glitch, because we are always engaged in different, yet not separate,

practices of mediation. To put this point differently, any act of knowing is always *involved with* and *embodied in* some form of mediating practice, even if that mediating is conducted through the physical-biological body. Her general argument pushed toward involving how other senses—broadly construed—contribute to knowing and anticipating how our media reconfigures our capabilities as an ongoing constellation. This dynamic of mediation as a constellation that continually undergoes change troubles our notions of the individual as something we can easily presume. In the next sections, I attempt to extend the practices of Wysocki’s embodied sense of mediation; however, we can stipulate here that, although it is important to engage the individual as such, Wysocki hints that we can begin to consider the practices of mediation more broadly. These broader practices would understand that any individual is already extended and always embodied through mediation in ways that exceed what that individual can see or consciously know through critical practice.

As most critical scholarship extends and troubles our relationships with technology, many have offered direct rejoinders to Lanham’s bi-stable oscillation to account for these more dynamic and embodied understandings of mediation, especially as it concerns the individual (human) actor. For instance, Heidi McKee (2005) found an opportunity to better engage the multiple roles of the subject in Lanham’s heuristic. She argued that “it is not *bi-stable*, but *multistable* oscillations that I am trying to foster in students’ (and in my own) perceptions” (p. 126). This intervention, McKee proposed, moves “Lanham’s notion of AT/THROUGH away from his original emphasis on textual and aesthetic decorum and moved it into more critical and cultural studies fields” (2005, p. 126). McKee rendered explicit the critical operations at the heart of Lanham’s heuristic as a way to engage the multiple subject positions an individual might occupy in any given rhetorical situation. Recently, Joanna Drucker (2011) echoed McKee’s position when she asserted that any theory for interfaces must involve “a rich understanding of enunciating and enunciated subjects” (p. 2). This theory, Drucker continued, must “take into account the user/viewer as a situated embodied subject, and the affordances of a graphical environment that mediates intellectual and cognitive activities” (2011, p. 8). The nuance and attention paid to the individual subject as an embodied and complex actor is an understandable development in critical scholarship and one vital to understanding the complex relationships between the human and the nonhuman. However, alone, this *multistable* revision does not radically refigure the role of the individual subject as much as it multiplies the number of positions a subject occupies. Instead of refiguring the underlying figure-ground dynamic at play in a bi-stable oscillation, a *multistable* oscillation multiplies and reinforces the rhetoric of critical practice. This continued relationship is important as it keeps at a safe remove a base, embodied individual whose interactions with and through technology, although multiple and complex, might best be understood as prosthetic in nature and not one who has been thoroughly made over, to use McLuhan’s famous phrase.

Although McKee (2005), Drucker (2011), and many others have pursued articulating a more expansive notion of the subject who engages media, others have found similar need to expand the complex of mediation to acknowledge different aspects of its complexity. Collin Brooke (2009) intervened by emphasizing the complex intersections threading together human and nonhuman. Brooke argued for understanding interfaces and mediation as an ongoing set of practices that are situated to particular configurations, always within a wider ecology of interactions. Brooke recognized that the bi-stable oscillation continues to assume interfaces as “static objects, rather than dynamic practices” (2009, p. 133). Like McKee, Brooke argued that any bi-stable oscillation depends on the user’s position for engaging that interface because “[w]ith interfaces,” we cannot engage a simple “at/through distinction” because this operation leaves “the position of the viewer, user, [and] reader unexamined” (2009, p. 140). In addition to *at* and *through*, we also look “*from* a particular position.” Here, the position of the user’s relationship to an interface—the technology’s affordability and availability, the interface’s settings, algorithmic programs, hardware configurations—help determine whether that user looks *at* or *through* an interface because “we as users participate in the construction of our interfaces” (Brooke, 2009, p. 134). I will return to the importance that prepositions can have for developing rhetorical orientations in the next sections, but I point out here that Brooke’s intervention is not simply clever wordplay. In fact, changing a preposition is, in many ways, a remediation of the actors in any given practice in that the preposition helps determine subsequent roles of subject and object. Adding *from*, as Brooke does, loosens our adherence to stable subject positions emphasizing instead that wider, embodied ecology of media through which we are, as Wysocki noted, always already embodied.

Brooke’s project helped to invent ways for responding to today’s more minutely customizable interfaces and mobile devices. He pointed to a game’s interface as an example of how interfaces vary greatly depending on a user’s choices to customize, a user’s level and experience in the game, and even the game’s own ability to be upgraded by additional purchases or updated through software revisions. Brooke’s *from* intervention has resonated further as we find social networking sites (e.g. Twitter and Facebook) and search engines (e.g. Google and Bing) increasingly rely on algorithmic

Bing Search for "Climate Change" - International Comparison

US: Informational Sites

EU: Climate Action Sites

Figure 2. Pariser's filter bubble.

protocols for informing with what interfaces users find themselves interacting. All of which is to say, a user *sees* an interface that is the result of interactions that occur between the past uses of that interface, the device, and even geographical location. Eli Pariser (2012) offered a concrete explanation for these phenomena when he revealed that our most commonplace applications and social networks are becoming more personalized as a way to better target content and advertisements to specific users. The *filter bubble*, to use Pariser's term, is best demonstrated by considering a simple Internet search wherein any two queries on the same search engine often turn up vastly different results. The same search will turn up different results depending on the physical locations of the users, their past search activities, the devices used in the search, the time of day, and any number of other variables (Figure 2). Using an example from Pariser's own blog, a web search about "Global Warming" from a user in North America and one located in the Europe Union (EU) would turn up difference results because of the milieu in which those searches were made. In the American example, the search's top non-advertised results were a Wikipedia page and the US Government's EPA site. The EU search, on the other hand, offered top non-advertised results that lead to sites titled: "Stop Climate Change" and "Climate Change Action." The results tell a tale of two states wherein one leads to definition, the other to action. From this example, we can begin to appreciate how Brooke's addition of *from* to Lanham's heuristic is a crucial development because it demonstrates that our current, critical rhetorical practices have become destabilized operations.

Looking *at* and *through* becomes less productive a heuristic when that which we look *at* or *through* is a dynamic and shifting process and not a stable object. Brooke's *from* contribution offers a tactic that moves us towards incorporating Wysocki's understanding of mediation as always already embedded and embodied. Mediation then might be better understood as confused, shared endeavors, an ecology of co-operation among a collective of practitioners, tools, and protocols but never something in which easy distinctions can be made. We can understand another aspect of glitch in this wider notion of mediation by looking briefly at Julian Oliver's (2012) "Border Bumping." Oliver's project uses mobile GPS technology to demonstrate the instability national borders (Figure 3). In the project's own words, Border Bumping "is a work of dislocative media that situates cellular telecommunications infrastructure as a disruptive force, challenging the integrity of national borders" (Oliver, 2012, para. 1). The project mapped how a biological body can be located in one country but whose mobile device and its GPS features are embedded in a neighboring country's cellular network infrastructure. This glitch allows for an otherwise accepted map to be redrawn to account for the mediation process of borders and not to count the border as the mediator.

When we consider that a simple internet search is affected by complexities similar to those found in the mediation of national borders—most of which far exceed our ability to consciously know their dynamics—Lanham's "Western decorum" and, by extension, the manner of engagement available in critical rhetoric, offer fewer positions for rhetorical practice. Despite the many variations of Lanham's bi-stable oscillation and critical orientation in general, we continue



Figure 3. Border Bumping.

to arrive at familiar positions. When we practice a bi-stable oscillation, we assume, create, and rely on disruptions and distanced positions from where separated observers critically examine a separated observed. Considering our evolving definitions of mediation as extended, embodied, and ecological, Lanham's bi-stable oscillation itself stands at least to be revised, if not reinvented to account for rhetoric as a practice that does not assume those positions of remove. In the next section, we begin this reinvention by examining Gilbert Simondon's (2009) notion of individuation and his related concept of metastability.

3. Toward metastable orientations

To elaborate Lanham's heuristic and build a more expansive notion of mediation, I submit that we would benefit by reconsidering the manner in which we cast our technological relationships. As I noted in the introduction, Katherine Hayles (2012) argued that our contemporary technological moment could best be characterized as being "about adaptation, the fit between organisms and their environments, recognizing that both sides of the engagement (humans and technologies) are undergoing coordinated transformations" (p. 81). Her work built on a minor tradition in philosophy that considers ontology in general and mediation in particular not as things that occur when stable human subjects encounter static nonhuman technology, but as mutual innovations in which both human and nonhuman interact to create new ensembles and further possibilities for being in the world. Where many of our earlier philosophical and critical positions involved a stable human subject engaging equally stable technological objects, Hayles found that Gilbert Simondon offered ways to suspend that version of the individual in favor of engaging ontology as an ongoing process. We can follow her lead and find Simondon's notion of individuation and the underlying condition that makes individuation possible—metastability—informative for rhetoric, offering an orientation that promises new rhetorical practices for our increasingly embodied and complex media relationships.

Gilbert Simondon became a little known but highly influential figure in French philosophy, directly influencing Gilles Deleuze, Felix Guatarri, and Bruno Latour, and his work continues to impact contemporary figures such as Brian Massumi, Bernard Stiegler, Elizabeth Grosz, Adrian MacKenzie, and, of course, Katherine Hayles. Hayles said of her recent turn to Simondon that his related concepts of ontogenesis and technogenesis "provide an explanatory framework within which the complex temporalities can be seen to inhabit both living and technical being" (2012, p. 86). To greatly reduce his project: Simondon argued that individuals continually emerge (individuate) from an ongoing fund (pre-individual) of problematic relations (metastability). From Simondon, then, we begin considering technological

innovation, and ontology more generally, as an evolving, relational process. This orientation is similar to one we now see emerging in rhetorical conversations of mediation. Take [Wysocki \(2012\)](#) or [Brooke \(2009\)](#) described before. Both understood interfaces as neither distinct nor simple things but as complex, embodied practices shot through with complex relations. Individuation, as an ongoing mediation of being, makes Simondon's work uniquely suited to extend our rhetorical understandings as our own scholarly and pedagogical dispositions tend to approach complex technical situations—as is the case with any instance of writing—as an ongoing process.

Simondon located a problem in the tradition's general attempts to study the individual as such (be that individual a human, tool, mineral, plant, etc.) and sought to reinvent this common notion of individuation by questioning the extent to which the philosophical tradition examined product over process. Typically, philosophers considered the individual and then traced its relationships to larger biological, technological, and psycho-social realities. We witness a similar orientation in Lanham's bi-stable oscillation and many critical theorists who follow as each starts at an individual (or multiple individuals) and then explains how technology functions as prosthesis, as something extending an otherwise stable subject. Such *reverse engineering*, as [Elizabeth Grosz \(2012\)](#) called it, can only begin by presuming an already formed, distinct individual for whose relations we then account for after the fact. This orientation assumes an individual as thoroughly infused in a bi-stable oscillation, whereby substance underlies form or subject perceives an object. [Simondon \(2009\)](#) posited that these traditional approaches “presuppose the existence of a principle of individuation that is anterior to the individuation itself, one that may be used to explain, produce, and conduct this individuation” (p. 4). Simondon argued against the bi-stable, pre-formed individual (e.g. hylomorphism) when he proposed, “to know the individual through individuation rather than individuation through the individual” (2009, p. 9). This process, individuation, allows us to reconfigure our understanding of individuals and collectives in that “[t]he individual would then be grasped as a relative reality, a certain phase of being that supposes a pre-individual reality, and that, even after individuation, does not exist on its own, because individuation does not exhaust with one stroke the potentials of preindividual reality” ([Simondon, 2009](#), p. 9). Simondon's emphasis on “relative reality” echoed in Wysocki's notion of media as an always already embodied practice, and it helps us characterize an individual—be that a user, an interface, an infrastructure—as only a momentary event in an ongoing process of affirming relations. “Individuation,” Simondon explained, is only “a partial and relative resolution” in a “pre-individual system” that becomes “incompatible in relation to itself” 2009, (p. 5). Any thing we might single out, then, according to Simondon, is only a temporary resolution in an ongoing process of becoming (individuation).

As rhetoric wrestles with how to account for interconnections between users and tools, as seen above in internet searches and mediating national borders, we too are finding it difficult to begin at any one of those things because those beginnings are almost always inadequate considering the abundance of relations possible in any given moment. Speaking on Simondon's work, [Elizabeth Grosz \(2012\)](#) wrote that “[t]he individual is always more than itself, for it is an individual with the ongoing potential to undergo changes” and that the “pre-individual forces also constitute the milieu within which the individual is located” (p. 38). Importantly, an individual does not wholly exist prior to its relations, and those relations are always in excess, created by and further re-creating tensions, ruptures, and the differences necessary to maintain individuation as an ongoing process.¹ The tensions and incompatibilities—glitches—often thought to be exceptions and markers for critical positions are, instead, recast as the conditions through which individuation persists as an ongoing process. It is not that those moments of disruptions are errors to be *corrected* or even errors that reveal operational logics, but they are instead the conditions of possibility for rhetorical action. Much like the endless possibility that media artist Jon Satrom and Ben Syverson ([Pox Party, 2010](#)) found in a 100% problem-based operating system—per the sOS mentioned in the introduction—Simondon too approached mediation (and being in general) as an ongoing problem to be resolved. This conception of individuation as a process of shifting relations helps revise our approaches to media as relationships best characterized not as bi-stable or even multi-stable but as more than stable.

¹ It is toward a similar form of individuation that composition scholar [Kristie Fleckenstein \(2012\)](#) attempted to engage media to explore identity. Fleckenstein's notion of individuation insisted, informed by legal ethicist Drucilla Cornell, that individuation ought to be a right afforded to students. This conception of individuation attempts to create safe spaces for students to explore how media, identity, and community work together to form one's conditions of possibility. Unlike Fleckenstein and Cornell's use of the concept, [Simondon \(2009\)](#) explicitly avoided the juridical register precisely because such a frame necessarily assumes an identity to begin its proceedings. For Simondon, such a conception of individuation replicated the notion of individual as the stable point that re-casts all else as an extension of that individual.

What maintains the process of individuation, and what should be of great interest us as rhetoricians, is not stability granted by an underlying biological, technological, or psycho-social substance but a metastability of relations.² Simondon borrowed metastability from physics where the term describes a system's tendency to persist in a precarious equilibrium for indefinite periods of time until some shift changes the dynamics of that system. For Simondon, metastability is that state whose stability is held together by tensions and contradictions that are always rife with potential for reconfiguration. Alberto Toscano (2006) explained Simondon's metastability as a state where "prior to [and concurrent with] individuality, being is affected by inconsistency, populated by divergent tensions, and pregnant with incompatible potentials" (p. 138). Or, as Muriel Combes adeptly phrased that a "physical system is said to be in metastable equilibrium (or false equilibrium) when the least modification to the parameters of the system (pressure, temperature, etc.) is sufficient to break the equilibrium of the system" (2012, p. 3). Both accounts of metastability characterized the process of individuation as precarious, abundant with differential relations. That the relations are uneven and inconsistent is a vital quality of individuation because, as Michael Dieter (2011) argued, "this particular variant on technological action is founded on dissymmetry" and is "never fully surpassed or resolved" as it becomes "a metastable process through which a surrounding milieu unfolds" (196). With even slight changes in its relations, that system is susceptible to a vast reconfiguration as it attempts to resolve those issues. Of importance here, for our concerns with mediation and even more with glitch, is that any individual persists not only as an individual but also as part of a metastable abundance of incompatible and unresolved potentials that can be and are differently resolved at any given moment.

How might this admittedly abstract notion, metastability, be used to rethink Lanham's bi-stable oscillation? Recalling the previous section, we understand that Lanham's bi-stable oscillation offers a practice of looking *at* and looking *through*; as such, the heuristic creates and reinforces one manner of rhetorical being, a relation between subject and object, a hylomorphic relation between a (ideal) form and (material) substance. The practice and the manner in which a relation is undertaken is itself a mediation that helps produce the interface or infrastructure we eventually engage. Using the bi-stable oscillation is to practice *being* a subject looking at and through an object. We can extend this manner of rhetorical practice and better concretize our notion of metastability by turning to Bruno Latour's (2011) recent work adopting Etienne Souriou's understanding of *prepositional ontologies*. In responding to ontology as multiple in the same sense of Simondon's preindividual, Latour explained that attending to an "ontology of prepositions immediately takes us away from the all-too-familiar sorts of inquiry in the philosophies of being" and that a prepositional ontology equips us to "focus on what comes next" (2011, pp. 308–309). Put differently, focusing on the preposition instead of distinct subject or object encourages sensitivity to being as an ongoing mediating process that continually unfolds through ongoing renewals (instaurations) of relations. Echoing Simondon's metastability and individuation more generally, an engagement with ontology as an array of available prepositions suspends our focus on established individuals in favor of attending to relations. The human and nonhuman are involved in a multiplicity of relations at any given moment, relations that are *mutually inclusive*. Those relations—*of, for, against, in, with, before*—are all available means to mediate what comes next. In this sense, rhetorical practice is not only the foregrounding of any one or two of those relations but also a capacity to affirm any number of those available relations to produce new and unforeseen compositions. Adopting a metastable orientation—a practice we only partially realize with Lanham's bi-stable oscillation—allows us to understand mediation not as something that occurs between single things (e.g., device, interface, user) or even as a collection of multiple things (e.g., infrastructure, institutions) but as a smooth process in which any one point we might single out is not an underlying substance but an abstraction.

Although the theorists previously described made cases for the wider ontological conditions of possibility, our concern is to respond to those projects by developing a heuristic or practice that prepares us for our embodied and ecological media conditions. To be clear, I aim for these theoretical examinations to contribute to a revised heuristic for practicing rhetoric in a different manner. With Simondon's general account of individuation and metastability, we are well equipped to reinvent Lanham's bi-stable oscillation. Unlike a bi-stable oscillation offered by Lanham that only practices one relation—subject/object—a metastable orientation urges us to consider a process through which

² Although the common conception of the prefix *meta* is understood as meaning *above*, we find a helpful and inventive understanding of meta when we remember its etymology also referred to *among*. Brian Massumi (2011) made a similar point when he wrote that meta "refers not to the on-high of the ideal, but on the contrary to the spontaneous remingling of acquired regularities of practice with emergence level chance and the indeterminacy from which they evolved" (p. 103). For our purposes, metastability is a position situated among many different relations but does not articulate a privileged, removed position from which any particular relation might be singled out and known without actually enacting it.

pre-individual potentials are never exhausted. In addition to our two established modes, *at* and *through*, a metastable orientation allows us to exercise the multiple relations available in rhetorical practice. By moving from a bi-stable oscillation toward a metastable orientation, subject and object become one manner of being within a much larger set of possible relations. To say this in another way: we become differently oriented when orienting ourselves at the level of the preposition. If we now may amend our original question concerning rhetoric and glitch: In what manners might we not only foreground a subject and object—looking *at* or look *through*—but also practice being *before*, existing *alongside*, becoming *with*? In adopting a metastable orientation, we practice a rhetoric that is not only the mediation *between* two things but also, perhaps, the mediation *of* those two things (and more and less). With a metastable orientation, what we consider as subjects and objects switch, merge, and transduce positions in a manner that is difficult to consciously know but is a process within we might come to know *with* (a lot of) practice. If Lanham’s bi-stable oscillation and critical engagement seek to error-check, perhaps the best example for a metastable orientation is to practice the production of error. In the next section, we look at an example of one such metastable orientation by examining glitches as an intentional practice of error.

4. Working with glitch

Richard Lanham (1993) claimed that “rhetoric as we know it was born in the midst of a radical change in technology—the invention of writing” (pp. 84–85). It is a bit of a misnomer on Lanham’s part to consider writing as having been invented just once because it still continues to be invented. Rhetoric too. The writing and the rhetoric Lanham implicitly references might best be tied to the medium of chirographic writing and rhetorical exercises like *dissoi logoi*. In concert with the technology of chirographic writing, the technique of *dissoi logoi* emerges as an exercise that helped determine a “manner of being” in the world. In a certain sense, *dissoi logoi*’s mediation between *for* and *against* was considered to be a disruptive glitch as many philosophers argued that its practitioners disrupted regular order if not truth itself. Elsewhere, Lanham (1993) contrasted *dissoi logoi* against an opposing philosophical orientation for inquiry, arguing that the two-sided argument is not really a practice *for/against* an ideal truth but was instead an *exercise* of truth. He claimed:

[r]hetoric, in contrast, built upon *this* world, not a world of ideas, and in this world the same things present itself in different truths. A mile is longer to a child than to an adult runner. In such a world, the two-sided argument allows us to adjudicate, harmonize, these contending views. (1993, p. 58)

Here, we might find a (productive) glitch occurring between Lanham’s projects in that, on one hand, he views the bi-stable oscillation, looking at and looking through, as at the heart of a Western tradition of critical thought that sought to position a subject in relation to an object. On the other hand, *dissoi logoi* and the practice of arguing for and against is not a critical operation of a knowing subject but more of an ontological exercise, one that mediates those positions. Such a take of *dissoi logoi* largely echoes Eric Charles White (1987) who, in discussing rhetorical invention in this expansive ontological sense, claimed that “[t]he doctrine of *dissoi logoi* implies an ontology not unlike the one put forward by Heraclitus, who saw reality as an ‘ever-living Fire’ that ‘rests by changing,’ or remains the same by becoming other than itself” (p. 16). *Dissoi logoi* unfolding as an “ever-living Fire” recalls the ontogenesis of Simondon and Latour/Souriau’s prepositional ontology. We might even begin to understand *dissoi logoi* creating the conditions of possibility for a metastable orientation by remembering Victor Vitanza’s (2002) attempt to intensify *dissoi logoi* when he called for *dissoi paralogoi*, a “dis/uniting of sophistic *dissoi-logoi* and paralogy” a practice that “wages perpetual war against dialectic (of any kind), against didactic, and against *dissoi-logoi* by moving from one and two to an explosion of *threes* or ‘some more’” (p. 168). Just as Vitanza looked to move against/through/around a bi-stable manner of relation, so too does a metastable orientation attempt to develop sensitivities to more than two possible relations. As *dissoi logoi* surfaced at the dawn of our writing technologies to occasion an ontological training, one that developed *mētis* or embodied knowledge through a practice of mediation, then perhaps we might renew this practice to be more inclusive of our available relations. Glitch art offers rhetoric just such a practice for developing metastable orientations.

Although much of what I have outlined before concerning mediation and the metastable orientation benefits from all sorts of incompatibilities, disruptions, and missteps, I turn now from bi-stable oscillations and *dissoi logoi* to another media practice—glitch art—that seeks not to error-check but to produce error. If we understand error as a wandering away from a predetermined plan or path, then the practice of producing error complicates our notions

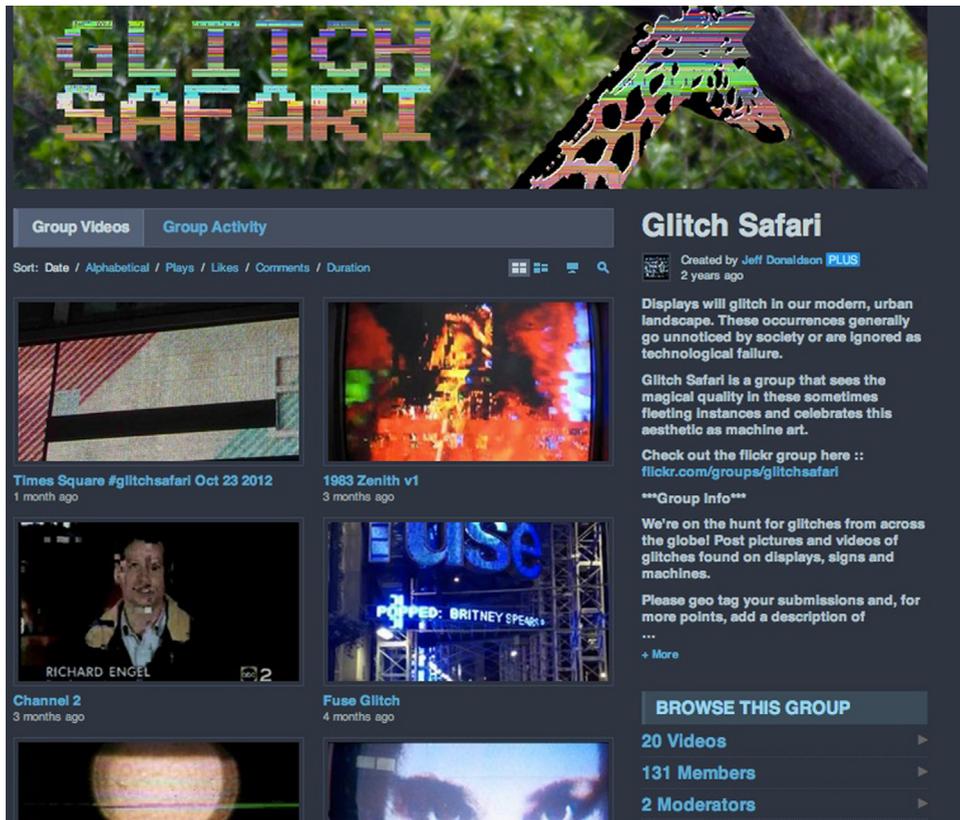


Figure 4. Glitch Safari.

of intentionality and determination. Glitches as productive errors disrupt the seamlessness and intuitiveness of our electronic environments, rendering less useful those bi-stable oscillations between immediacy and hypermediacy, mirror and window. For our purposes, we can consider the practice of glitch art not only in its aesthetic registers, but also as a good model for exercising a metastable orientation that may help inform new rhetorical practices.³

As glitch art highlights and prompts those malfunctions that occur in software and hardware, artists and theorists generally distinguish between two kinds of glitches: those that occur in the wild and those considered domestic. The first, glitches found in the wild, are the infelicities that emerge in the seemingly routine process of mediation: the screen that blanks, the text that flickers, the program that stutters. These missteps, seen in several of our opening examples—the email malfunction, stock-market slips, course mis/management system—ensue without much of our conscious attention. Many media artists seek to give attention to these wild glitches by recording them in some way. One example for these glitches is Antonio Roberts's (2010) "Glitch Safari" (Figure 4). In a collaborative site, he and others collected and archived glitches through screen recordings, videos, and still photography, helping to develop sensitivities to their occurrences.

In addition to those glitches found in the wild, a growing number of media artists compose domesticated glitches. Artists create these glitches or "databending" by exploiting errors and malfunctions in software and hardware; however, what they "create" is not reducible to what they can consciously know or anticipate. Glitch artist Rosa Menkman (2010) characterized the uncertainty underlying this art when she stated that "[w]hat actually happens when a glitch occurs

³ Evidence that these occurrences are gaining wider institutionalized space, especially in aesthetic registers, is shown in the establishment of the Museum of Glitch Aesthetics (MOGA). There, Museum Director Mark Amerika curates an evolving exhibit of glitches. MOGA's mission is stated as "[t]he works brought together in the *Museum of Glitch Aesthetics* are conceptual, glitchy, beautiful, pedagogical, humorous, and at times political reflections on the role that networked and mobile media communication systems play in today's digital culture" (MOGA, 2012). As the statement claims, these occurrences are not just momentary lapses in an otherwise ordered space but are intersections of activity that far exceed establishing an object to simply look at and consciously know.



Figure 5. Text edit of a .jpeg file.

is unknown. . . a void of knowledge. . . a strange dimension where the laws of technology are suddenly very different from what I expected or know” (p. 9). Databending then offers strategies for relating to technology in ways that that veer from designed purposes but whose wider possibilities are no less available; such strategies can be quite helpful for orienting oneself to a general condition of metastability.

In service of a quick primer, we can consider a few, but not exhaustive, basic databending techniques. Each of these techniques can be understood as exercises for developing a metastable orientation by offering repeated encounters with different relations. First, incorrect editing. This technique is used to edit a data file with software designed for a different type of data file. For example, one can open a non-text file (a .jpeg) in a text editor (TextEdit). In the text-editing window (Figure 5), one manipulates the image file data—adding information, subtracting information—and then reopens the file in an image viewing application.

What information is manipulated and in what order prove no substantial difference because it is difficult if not impossible to know what exactly is being manipulated and for what purpose. Thus, instrumental knowledge cannot



Figure 6. Image file before & after glitch.

be considered the goal for this practice because looking *at* or *through* for the purpose of anticipating potential effects is less important here than working *with* relations. The resulting file, when re-opened in its original image viewing application, displays an unanticipated alteration (Figure 6). It is difficult to consider this exercise a critical practice in that it assumes no position of remove or distance from the mediation. Instead, this is an exercise whereby multiple agents affirm one another to produce something unanticipated.

A second, related, type of glitch technique occurs through interpretation, and is made when a file is converted from one application to another. For example, we can convert a song file (.mp3) into an image file (.jpeg) (Figure 7). Such a change is not as dramatic as the previous example, but the practice of interpretation allows for a reinvention of one data set to be deployed elsewhere, invoking a sense of working *against*. Again, this technique better demonstrates an exercise in a metastable orientation rather than a bi-stable oscillation because agency is explicitly distributed, not claimed in an operational way by any individual.

These databending techniques also extend into those activities wherein an artist manipulates an operating system's source files, scripts, or even rewires hardware to produce ongoing glitch effects. Consistent with a metastable orientation, these invention tactics suspend any implied or known purpose, intent, or even design of any device in favor of experimenting *with* the relations available for those devices. By re-engineering a device's hardware or software, one exercises a process of becoming that responds to a wider sense of metastability covered in the preceding section. We can refer back to one of our opening examples, in particular, Jon Satrom and Ben Syverson's (Pox Party, 2010) sOS project as a good example for a more inclusive databending activity. The sOS as a running, glitched operating system demonstrates the wider range of relations available because its operation frustrates and prevents any user's intended actions while still continuing to operate. For the sOS, Satrom and Syverson claimed the operating system:

to be less goal oriented and more experience driven. So that when you try to do some word processing, you may get your word processor, but you may not. You may get a game. Or a video. Or an experience. That's what we want and that's what we've tried to deliver. (Pox Party, 2010)

Although sOS and its video is an obvious satire of the polished products and promotions offered by technology companies like Apple, the larger practice of glitch art that sOS represents is less concerned with critique than it is in what Satrom (2013) elsewhere posed as "creative problem creating." For Satrom, any application, like Microsoft's *Word*, is just a "collection of assets, it's a collection of icons, and pictures, of sounds and scripts. . . and in my book, all of that is fair game" and glitches "present an opportunity to problematize one's current context" and "show us that all that systems we rely on and praise for their perfection are inherently unstable and messy" (2013). I find implicit in Satrom's proposal along with our other glitch exercises and examples that when we come to appreciate the various files

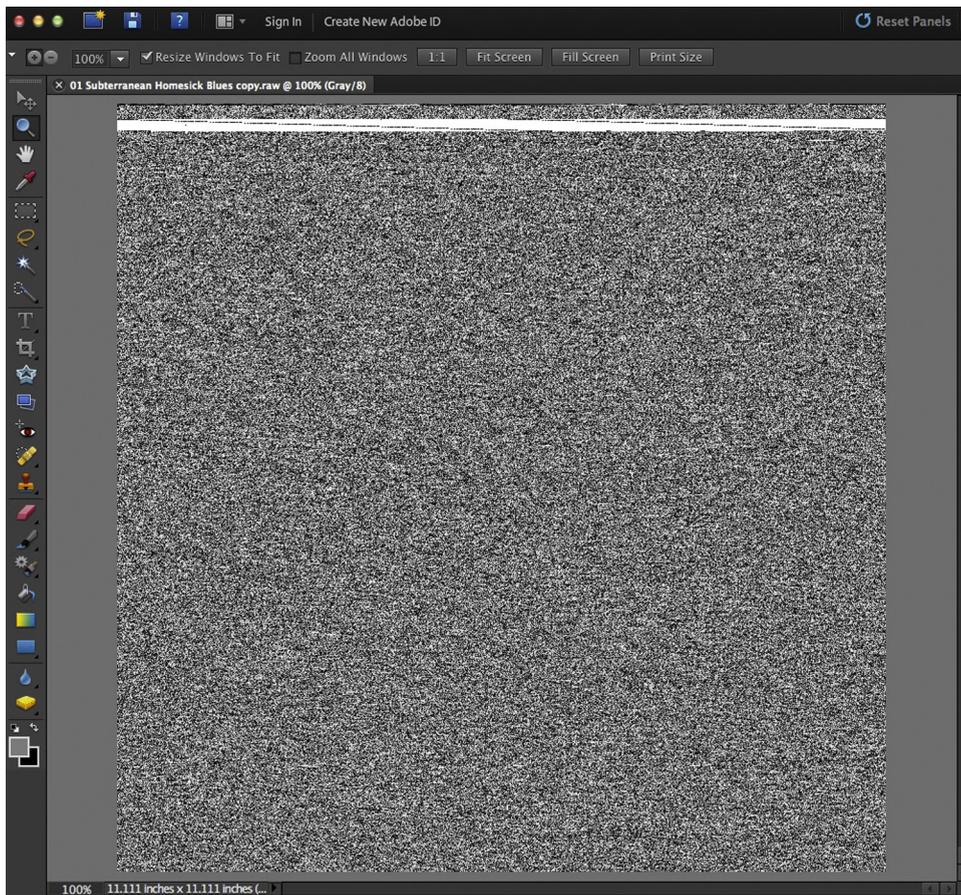


Figure 7. Subterranean homesick blues as data image.

and texts and circuitry in an operating system as “assets” that are “fair game,” we begin to understand the possibility in a metastable orientation, one that assumes error as an underlying condition of possibility for invention. This shift from instrumental use of media to co-operation compels Satrom to claim that glitch and databending culminate as occasions to break away from predetermined flows (Figure 8).

We are prompted here by Satrom (2013) and others to continue seeing glitch as a moment of breakdown and rupture, occasions that afford us positions to work against determinative structures, an oscillation not unlike one we find in critical rhetoric. This position would not be unsupported. Much of our rhetorical scholarship concerning mediation, particularly those about interfaces and infrastructure, considers the moment of rupture that glitch affords as an occasion for critical engagement. Mark Nunes paid credence to this connection when, in reference to glitch, he posited that “[e]rror reveals not only a system’s failure, but also its operational logic” (2011, p. 3). Like distancing techniques we find in critical rhetoric, glitches too are often thought to offer disruptions that resist and foreground the efficient, pre-packaged, and formulaic structures of consumer technology. Toward this end, media artist Curt Cloninger (2010), echoing Jon Satrom from before, aligns the glitch moment to what Lucretius referred to as the *clinamen* in ancient philosophy. Lucretius conceived of the *clinamen* as a way to explain how an otherwise predetermined physical world could exhibit indeterminacy needed to provide for change. Cloninger, channeling those ancient philosophers, claimed that “[i]t is the minute *swerve* in the flow of falling atoms that caused a chain reaction which led to variety, agency, and emergence in the world. Without this *swerve*, there is no change.” “Perhaps,” Cloninger went on to propose, “the glitch is such a *swerve*” (2010, p. 36).

In contrast to these common understandings, I submit that glitches are not free from determinative structures but are, perhaps paradoxically, evidence of the inventive potentials for working *with* structures of determination. In the examples I have shown, what makes glitches happen is not a break from programmed logics but an intensification of

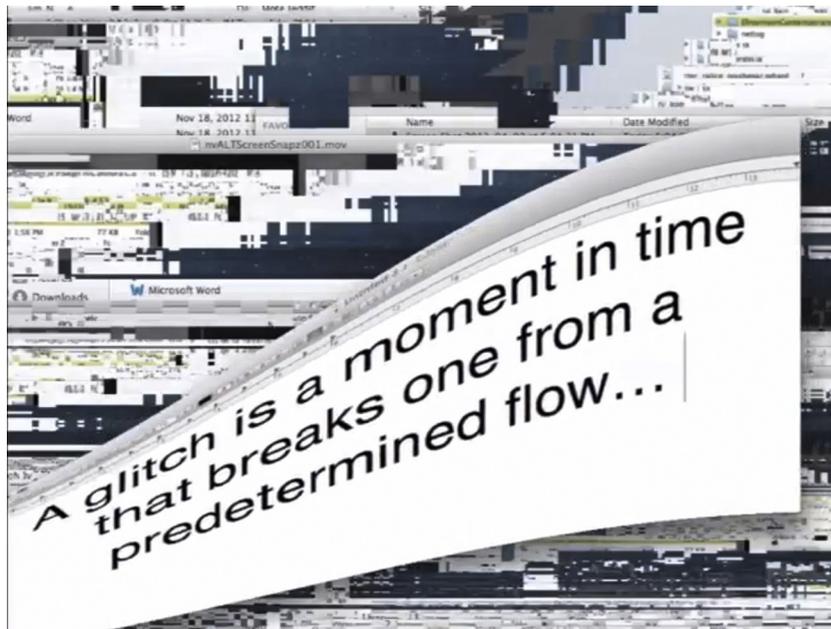


Figure 8. Breaking from predetermined flow.

those logics. When we translate an .mp3 into a .raw file, it is not a moment of freedom from determination but a new relation being determined that creates its unanticipated result. Basically, when a glitch occurs, it does so through the correct reading of incorrect files. Such an understanding of glitch is similar to [Hugh S. Manon and Daniel Temkin's \(2011\)](#) position when they posited “glitch-based representation depends upon the inability of software to treat a wrong bit of data in anything other than the right way” (p. 1). This is to say that determination and constraint—that which we might seek to resist in a bi-stable oscillation—emerge in a metastable orientation as assets from which to invent and not as things to resist in the traditional sense. Instead of considering rhetoric and glitch as forms of training in resistance tactics, we might more productively consider rhetoric and glitch through metastable orientations as *resistance training*. To put this another way, much like when we exercise in a gym, straining regions of the body we rarely use (much less know), so too might practices like those involved with glitch art attune us to the embodied medial conditions that inform us. These practices, overlapping those we find in *dissoi logoi* and the bi-stable oscillation, help inform, transduce, and exercise a rhetorical manner of being in ways that are not reducible to what we see or know, but aim to increase and intensify what we can do.

5. Conclusion

A metastable orientation that helps enact glitch cannot be understood simply as an instrumental or as only a critical engagement with mediation. This manner of rhetorical practice proceeds through a fundamental uncertainty: What can these relationships do? A metastable orientation is a manner of engaging rhetorical practice that includes but is irreducible to what we can consciously know, see, or anticipate. As the examples described before show, we expand our critical orientations from which we look *at* or *through* mediation by also interacting *with* files, *through* interfaces, *on* operating systems, and *against* hardware (and all other relational combinations therein). Glitch, as one example of a metastable orientation, seeks to exercise relations *before* anything is positioned as subject or object. It is also important to note that the practice we see in glitch need not be digital or even what we currently think of when we think the technological. For instance, in composition studies, glitch art might help us reconsider the work of Mina [Shaughnessy \(1997\)](#) whose own investigations into student writing errors showed not the deviation but the resolution of incompatible instruction systems. This article, too, participates in a metastable orientation as it suspends strict disciplinary boundaries and definitions in favor of exploring and establishing new practices. For instance, the editing error whereby one manipulates a data file through a non-corresponding application is analogous to editing a

heuristic (Lanham, 1993) through a non-corresponding theoretical orientation (Simondon, 2009) and reassembling those theoretical orientations as somewhat glitched, but productive new practices.

What we get in cultivating a metastable orientation is an attempt to exercise multiple relations towards what we might consider to be affirmative rhetorical practice. Such a rhetorical practice would seek to affirm relations, not definitions, as key elements for rhetorical engagement. We cannot easily isolate the creation of a glitch to an individual human working at a computer's interface, hardware in its wider infrastructure, or even algorithms that collide/collide to produce that glitch. Instead, glitch can help inform a rhetoric that is an ongoing practice of affirming the multiple relations available in any given moment of mediation; it is an ongoing practice of speculating "what comes next." Glitch occasions a manner of relating to technology and mediation that reconfigures our subject/object approaches as it reconfigures subjects and objects through a developing a metastable orientation. This new manner for rhetorical practice, with glitch as one of its model exercises, offers us a manner of engaging mediation not as objects that supplement, threaten, or determine subjects, but as relations whose subjects and objects, to borrow a phrase, are yet to be determined.

Casey Boyle is an Assistant Professor in the Department of Rhetoric and Writing at the University of Texas at Austin. He researches and teaches digital rhetoric, composition theory, and histories of rhetoric. He is a co-editor for *enculturation: a journal of rhetoric, writing, and culture* as well as co-editor for the essay collection *Rhetorical Ontologies: Rhetoric Through Everyday Things*. Casey is completing a book, *Rhetoric as Posthuman Practice*, that explores the role of practice and ethics in digital rhetoric.

References

- Arola, Kristin L. (2010). The design of Web 2.0: The rise of the template, the fall of design. *Computers and Composition*, 27(1), 4–14.
- Bolter, Jay D., & Grusin, Richard. (2000). *Remediation: Understanding new media*. Cambridge, MA: Massachusetts Institute of Technology Press.
- Bolter, Jay D., & Gromala, Dianne. (2003). *Windows and mirrors: Interaction design, digital art, and the myth of transparency*. Cambridge, MA: Massachusetts Institute of Technology Press.
- Brooke, Collin. (2009). *Lingua Fracta: Toward a rhetoric of new media*. Cresskill, NJ: Hampton Press.
- Brown, James J., Andrew, Engel, Whitney, Hardin, Donora, Hillard, Jason, Kahler, Michael, McGinnis, Derek, Risse, & Conor, Shaw-Draves. (2012). Interfaces and infrastructures examining new media objects in the English Studies classroom. *Pedagogy*, 12(3), 521–540.
- Cloninger, Curt. (2010). GlitchLinguistx: The machine in the ghost/static trapped in mouths. Retrieved from <http://lab404.com/glitch/>
- Combes, Muriel. (2012). *Gilbert Simondon and the philosophy of the transindividual*. (Thomas LaMarre, Trans). Cambridge, MA: Massachusetts Institute of Technology Press.
- Coole, Diana. (2010). The inertia of matter and the generativity of flesh. In Diana Coole, & Samantha Frost (Eds.), *New Materialisms: Ontology, Agency, and Politics* (pp. 92–115). Durham, NC: Duke University Press.
- DeVoss, Dànielle Nicole, Cushman, Ellen, & Grabill, Jeffery T. (2005). Infrastructure and composing: The when of new-media writing. *College Composition and Communication*, 57(1), 14–44.
- Dieter, Michael. (2011). Contingent operations: Transduction, reticular aesthetics, and the EKMZR trilogy. In Mark Nunes (Ed.), *Error, glitch, noise, and jam in new media cultures* (pp. 187–209). New York, NY: Continuum.
- Drucker, Johanna. (2011). Humanities approaches to interface theory. *Culture Machine*, 12, 1–20.
- Fleckenstein, Kristie S. (2012). Protecting the imaginary domain: The importance of imagery, emotion, and bodies in writing pedagogy. In: Kristin Arola & Anne Francis Wysocki (eds.), *composing (media) = composing (embodiment)* 239–258 Logan, UT Utah State University Press.
- Gehl, Robert W. (2012). Real (software) abstractions on the rise of Facebook and the fall of MySpace. *Social Text*, 30(2), 99–119.
- Grosz, Elizabeth. (2012). Identity and individuation: Some feminist reflections. In Arne De Boever, Alex Murray, Jon Roffe, & Ashley Woodward (Eds.), *Gilbert Simondon: Being and technology* (pp. 37–56). Edinburgh, UK: Edinburgh University Press.
- Haefner, Joel. (2009). Letter from the guest editor. *Computers and Composition*, 26(3), 135–137.
- Hayles, N. Kathryn. (2005). *My mother was a computer: Digital subjects and literary texts*. Chicago, IL: University of Chicago Press.
- Hayles, N. Kathryn. (2007). Hyper and deep attention: The generational divide in cognitive modes. *Profession*, (1), 187–199.
- Hayles, N. Kathryn. (2012). *How we think: Digital media and contemporary technogenesis*. Chicago, IL: University of Chicago Press.
- Lanham, Richard. (1993). *The electronic word: Democracy, technology, and the arts*. Chicago, IL: University of Chicago Press.
- Latour, Bruno. (2011). Reflections on Etienne Souriau's different modes existence. In Levi Bryant, Nick Srnicek, & Graham Harman (Eds.), *The speculative turn: The continental realism and materialism* (pp. 304–333). Melbourne: re.press.
- Latour, Bruno. (2013). *An Inquiry into modes of existence* (Catherine Porter, Trans). Cambridge, MA: Harvard University Press.
- Manon, Hugh S., & Temkin, Daniel. (2011). Notes on glitch. Retrieved from http://www.worldpicturejournal.com/WP_6/Manon.html
- Manovich, Lev. (2001). *The language of new media*. Cambridge, MA: Massachusetts Institute of Technology Press.
- McCorkle, Ben. (2012). Whose body?: Looking critically at new interface designs. In Kristin Arola, & Anne Francis Wysocki (Eds.), *composing (media) = composing (embodiment)* (pp. 1–24). Logan, UT: Utah State University Press.
- McKee, Heidi A. (2005). Richard Lanham's *The Electronic Word* and AT/THROUGH oscillations. *Pedagogy*, 5(1), 117–129.
- Menkman, Rosa. (2010). *Glitch studies manifesto*. Retrieved from <http://rosa-menkman.blogspot.com/2010/02/glitch-studies-manifesto.html>
- Museum of Glitch Aesthetics. (2012). From the museum of glitch aesthetics catalog. Retrieved from <http://www.glitchmuseum.com/index.html>

- Nunes, Mark. (2011). Introduction: Error, noise, and potential: The outside of purpose. In Mark Nunes (Ed.), *Error, glitch, noise, and jam in new media cultures* (pp. 3–26). New York, NY: Continuum.
- Oliver, Julian. (2012). *Border Bumping*. Retrieved from <http://borderbumping.net/>
- Pariser, Eli. (2012). *The filter bubble: What the Internet is hiding from you*. New York, NY: Penguin Press.
- Pox Party. (2010). Introducing Satromizer OS. Retrieved from <http://satromizer.com/sOS/>
- Reid, Alex. (2012). Composing objects: Prospects for a digital rhetoric. *Enculturation*, 14. Retrieved from <http://www.enculturation.net/composing-objects>
- Roberts, Antonio. (2010). *Glitch Safari*. Retrieved from <http://www.helloatfood.com/glitch-safari/>
- Rosinski, Paula, & Squire, Megan. (2009). Strange bedfellows: Human-computer interaction, interface design, and composition pedagogy. *Computers and Composition*, 26(3), 149–163.
- Satrom, Jon. (2013, May 13). *Creative problem creating: Jon Satrom at TEDxDePaulU*. [Video file]. Retrieved from <http://www.youtube.com/watch?v=OFwNtXpuMq4>
- Selber, Stuart A. (2009). Institutional dimensions of academic computing. *College Composition and Communication*, 61(1), 10–34.
- Selfe, Cynthia L., & Selfe, Richard J., Jr. (1994). The politics of the interface: Power and its exercise in electronic contact zones. *College Composition and Communication*, 45(4), 480–504.
- Shaughnessy, Mina. (1997). *Errors and expectations: A guide for the teacher of basic writing*. New York, NY: Oxford University Press.
- Simondon, Gilbert. (2009). The position of the problem of ontogenesis. *Parrhesia*, 7, 4–16.
- Stiegler, Bernard. (1998). *Technics and time 1: The Fault of epimetheus* (Richard Beardsworth & Georges Collins, Trans.). Stanford, CA: Stanford University Press.
- Toscano, Alberto. (2006). *The theatre of production*. New York, NY: Palgrave Macmillan.
- Vitanza, Victor J. (2002). Seeing in third sophistic ways. In Gary Olson (Ed.), *Rhetoric and composition as intellectual work* (pp. 164–174). Carbondale, IL: Southern Illinois University Press.
- Walls, Douglas, Schopieray, Scott, & DeVoss, Dànielle Nicole. (2009). Hacking spaces: Place as interface. *Computers and Composition*, 26(4), 269–287.
- White, Eric Charles. (1987). *Kaironomia*. Ithaca, NY: Cornell University Press.
- Wysocki, Anne F. (2012). Introduction: Into between—on composition in mediation. In Kristin Arola, & Anne Francis Wysocki (Eds.), *composing (media) = composing (embodiment)* (pp. 174–188). Logan, UT: Utah State University Press.
- Wysocki, Anne Frances, & Jasken, Julia I. (2004). What should be an unforgettable face. *Computers and Composition*, 21(1), 29–48.