Livestream video feeds, proliferating windows, endless scrolling, content embedded in content that blurs the lines between distinct pages – digital environments operate through the construction of continuous and seamless experience. However, this fabrication of fluidity is produced through rapid transfer, discretization, and remediation. While attention and reading practices in digital environments tend to focus on fluidity, the sites that emerge between, within the ruptures and glitches, produce alternate networks and modes of reading. The space between mediums and processes of remediation produce residue from the various material substrates and protocols of reading that adhere to works moving through networks. The attention to the residue can be understood as glitches, which proliferate the possibilities of reading and reveal the construction of imbricated reading environments. This is a practice I want to consider through the framework of glitch reading.

While this document is a compressed and distorted version of a much longer engagement with the notion of glitch reading, I want to briefly outline the larger claims of this practice as a mode of engaging with texts that move between different mediated formats, both digital and analog, and across browsers, videos, PDF, and codex formats. The reading practices I am discussing can be seen in a variety of works that emphasize remediation, transcoding, and transduction. Projects like Paul Soulellis’ *Library of the Printed Web*, Oliver Laric’s *Versions*, Rosa Menkman’s *Vernacular of file formats*, and Danny Snelson’s *EXE TXT* all provide models of reading the transitional states of remediation, rewiring and glitching in network environments. These projects can be read, parsed and reconfigured. And at the same time, they are acts of reading themselves.

In many ways this is a response to Alexander Galloway’s call for “new methodologies of scanning, playing, sampling, parsing, and recombining” as critical methods (29). Attempting to adopt this method, I sample, parse, and recombine Tan Lin’s ‘ambient operating system’ of poetic works to develop a mode of glitch reading. In
continuing to consider the mediation and between status of the glitch, these practices trouble the boundaries between critical and creative, material and immaterial, chaotic noise and apophenic messages.

Glitch reading is a practice of reading processes of mediation, reading ruptures, distortions, and absences. It is a rupture in the protocols of reading, exposing the structures of reading and the way in which they can be expanded or further developed through remediation. In this sense, glitch reading becomes a way to understand reading as a process of disparate activities that fabricate a fluid structure that is designated as reading. It also includes processes that are often excluded from the structure of reading, what Tan Lin refers to as practices of \textit{non-reading}. Attending to the glitch as a moment that exposes the material substrates that fabricate seamless environments, alternative forms of reading can proliferate and provide a glimpse into larger networks of relationality.

A glitch appears as a break, gap, interruption, delay, or failure in technical, aesthetic, and cultural systems. Drawing on the theorization of Rosa Menkman, a glitch can also be understood as “occasion where there is an absence of (expected) functionality, whether understood in a technical or social sense,” both accidental occurrences, where the technology falters, as well as intentional distortions, a practice of countering expectations and normal use (9). Practices of production and documentation are difficult to parse because much of the distinction relies on intentionality and interpretation of agency within human-machine relations. According to Kim Cascone, it becomes a way to “work beneath the previously impenetrable veil of digital media” (12). Through this technique, the digital production and processing procedures are made visible. Even when attempting to intentionally glitch, there is a possibility for something unexpected, troubling the assignment of agency between the human and machine. The passage of communication is perpetually open to the possibility of noise, a breakdown in the message. The glitch emerges in remediation, materializing in the gap.

A conception of the glitch as a rupture that occurs in ‘the between,’ requires an understanding of digital environments, digital objects, and the character of the mediations that happen between and within them. In this paper, the glitch is seen
predominantly as a way of understanding forms of mediation, remediation, and transcoding in digital network environments. The multiple layers of environment and mediation need to be defined in order to properly contextualize the significance and specificity of glitches. The middle space in which glitches operate is between the user and the hardware, a space that remains ill-defined because the entire space of mediation is loosely understood as part of the apparatus of software. Software is seen as a mediator between the physical implements that make up the computer and a human interface. And at the same time, software cannot be materially distinguished from hardware, meaning it is an extension of the material substrate of digital systems.

“A kind of integrated software”

In a 2010 interview, Tan Lin describes reading as “a kind of integrated software. Some of its functions are textual, some paratextual, some visual, although the line between these does not really exist in my mind” (Saunders). Elsewhere, Lin extends this description, grounding his definition in computing: “Integrated software is a genre of software that combines word processing, database management, and spreadsheet applications, and communications platforms” (Genusa). The notion of reading as an integrated software generalizes reading, making it a form of ‘integrating,’ while also proliferating, making reading a series of different activities that are all interrelated. Reading, as a general category, operates as a general approach to a variety of different types of texts. It can be applied broadly, but the transitions between textual environments require different “genres of reading.”

Thinking of reading as an integrated software reveals the apparent invisibility of these transitions, which become essential to parsing interoperable reading environments. As Wendy Hui Kyong Chun writes, “what is software if not the very effort of making something explicit, or making something intangible visible, while at the same time rendering the visible (such as the machine) invisible” (44). As such, it can be understood as “a problematic interface.” Applying this metaphor of reading as software, we can see the way that reading practices make the content or narrative or imagery (within the text) visible, while making the physical structures and framing devices
The experience is controlled, framed, and guided by the expectations of reading. In providing a surface experience for the user, the hardware is obscured. In an overcorrection, Friedrich Kittler declares “there is no software” in a material sense because there is no clear distinction between software and hardware. As a result, software often obscures hardware, privileging the user interface and hiding the machine.

But perhaps more important to this discussion is the value of extracting software from hardware and general user experience to better interrogate the particulars of these imbricated layers. In other words, software can become a form of mediation between the programmer or user and the machine, and it also can operate independently of the particular agents and environments the software originated in. Chun goes on to say that software is “something theoretically (if not practically) iterable, repeatable, reusable, no matter who wrote it or what machine it was destined for.” It is a generic space between these operators that “inscribe[s] the absence of both the programmer and the machine in its so-called writing” (30).

**R/W: Reading as Writing as Reading as Writing**

The transitional space of software also has the potential for the unknown to enter into operability and programming. These forms of mediation are often understood, specifically through Manovich, as transcoding, but this “focuses on static data and treats computation as a mere translation.” And, Chun goes on, it fails to address the reality “that one’s computer constantly acts in ways beyond one’s control” (46). This is the glitchiness of software, as a site of mediation and processing.

To see software as merely "transcoding" erases the computation necessary for computers to run. The computer's duplicitous reading does not merely translate or transcode code into text/image/sound or vice versa; its reading—which conflates reading and writing (for a computer, to read is to write elsewhere)—also partakes in other invisible readings. (46)
For Chun, software is already a form of reading. Not only is it reading, but also a form of writing “elsewhere” and “other invisible readings.” To consider digital reading practices as software is to proliferate reading into a distributed entangled process that is also inscribing and reproducing reading environments. In other words, practices of reading, specifically in digital environments, are always already practices of writing.

Navigating digital environments takes reading between interfaces, windows, and embedded elements. To move through these spaces often requires textual input to operate. The act of reading is also quite literally close to forms of reproduction, like copy and paste, that happen in digital reading. Additionally, the role of the user is getting closer and closer to the role of programmer. Both “create programs using editors, which are themselves software programs. The distinction between programmers and users is gradually eroding, not only because users are becoming programmers (in a real sense programmers no longer program a computer; they code), but also because, with high level languages, programmers are becoming more like simple users” (38). This erosion of the programmer is due to the distance and abstraction of programming languages that have obscured the computer. However, this also means that programming is not necessarily the pathway towards understanding the machinic hardware and tactical forms of digital reading can get there through distorting the digital environment, looking for signs of the machine faltering, processing, and glitching.

Thinking through the glitches in reading allow for an understanding of reading practices as varied and imbricated in one another. Reading is a practice of examining a page, it is also intertwined with writing, parsing, collecting, and archiving. In other words, it is an alternate mode of understanding networks of information and the material substrates that comprise networked environments. This is similarly echoed in Hito Steyerl’s work that imagine new possibilities embedded in the ruptures that occur within remediation. She writes,

Networked space is itself a medium, or whatever one might call a medium’s promiscuous, posthumous state today. It is a form of life (and death) that contains, sublates, and archives all previous forms of media. In this fluid media space, images and sounds morph across different bodies and carriers, acquiring more and more glitches and bruises along the way. Moreover, it is not only form
that migrates across screens, but also function. Computation and connectivity permeate matter and render it as raw material for algorithmic prediction, or potentially also as building blocks for alternate networks.

While I would put more pressure on the idea of digital fluidity, the ‘glitches and bruises along the way’ provide opening to reconfigure networks of relationality. Observing, capturing or producing these ruptures become reading practices that proliferate and distort through remediation.

Non-Reading as [re[reading]

The entanglement of textual environments through networks requires alternate forms of reading practice that account for the machinic activities that dominate the endless rewriting through unseen computational processing. This is similarly discussed by Tan Lin in relationship to disco, a precursor to forms of electronic, ambient, and glitch music. Disco “facilitates the endless reprogramming and rerecording of ‘sources’” placing the emphasis on distribution and circulation over originality and individuality. Lin writes, “Distribution is the new theater regarded as lifestyle, a mode of delayed and sampled sound modules or distributed practices” (“Disco” 86). Lin’s work, and the distributed networks in which they appear reconfigure the author as a facilitator of reading and writing environments. In other words, glitch reading is less about producing content and original works, and more about modulating the reading environments. As the normal constraints on textual environments are pushed towards the background, other aspects are surfaced. The process of reading becomes the site of tinkering through changes in speed, accumulation, and distracted activity.

Tan Lin’s practices of “non-reading” attend to the ways writing might work beyond the known and expected approaches. He writes, “Gertrude Stein is the most important writer of the twentieth century who ought to remain completely unread” (SCV, 132). By delaying direct engagement, the text holds open a space of possibility -- the pages remain forever in the shadows operating through proximity instead of direct reading. And yet the book remains in close proximity, always present: “I have, in a sense, never been able to put the book down and I hope that in the future I will continue to never put it down until the day that I die or stop eating” (132). The book becomes an ambient
object that is present but partially disconnected, empty and open in delayed possibility. It occupies through partial attention, a reading practice completely disengaged from looking at and processing words. It becomes an encounter with an object and remains in the same physical space as a text. Reading, in this sense, becomes a form of closeness. The act of reading shifts from an understanding through content consumption to an understanding through tactility, tracing, and navigating the space of the book. In this sense, the alternative reading that these works invite “resemble non-designed furniture, time-lapse photography, forms of yoga, negative lifestyles, experimental non-fiction, sequencing, or biofeedback devices designed to return our physiological processing to ourselves” (BLipsoak01 13). These feedback mechanisms place the body into the field of reading, proliferating the possibilities for what can be done through reading practices.

To conclude, it is worth reiterating Tan Lin’s question: “what are the forms of non-reading and what are the non-forms a reading might take?” (12). The practices of non-reading and a non-form of reading already begin to lead back towards a complex network of simultaneous and interdependent forms of reading. By overlapping reading practices and splicing them through each other, a larger integrated software accounts for these distinct processes that move rapidly from one state to another, and produce what Tan Lin calls an “ambient operating system.” In this sense, reading can be experienced more directly through the gaps and delays in the system. Reading becomes visible as soon as reading is delayed, warped, or compressed. [Re]reading becomes visible as soon as it is glitched.
References


