Electronic Mnemonic: Memory in the Machine

I am a hoarder of the most compact kind: my collection is vast, yet takes up very little space. In fact, it takes up no space at all. But my camera roll is so full that one more picture might finally send it bursting. Again and again my phone pings me gently: "You do not have enough storage to download this app." "iPhone Storage Full: You can free up space on this iPhone by managing your storage in settings." Each time, I concede and scroll through picture after picture. No, I cannot delete this screenshot of a funny conversation I had with a friend. Maybe I will want to look at it later, to smile at the small moment we shared. Isn't that what I'm doing now, as I dig through all these photos? Isn't this later? But my phone only has so much memory, and I have to make a judgment call about which memories I like the most. It's not a choice my phone lets me make easily, shuffling my things off to the recently deleted folder, before wheedlingly asking me, "Are you sure you want to delete this? This action cannot be reversed." Are you sure you want to get rid of this memory forever? You cannot get it back.

The cloud wasn't tangible enough, it wasn't mine enough, not like my phone which was both weight and possession.

This is a bit of a white lie. Computers do not erase information when you hit delete, they only forget that it's there. Deleting something means that the computer will mark the occupied space as available once again. Whatever you deleted is still stored in the drive, latent, willfully invisible. You could still pluck it back out if you really wanted to, coax the ghost of the memory out. The defining moment is when your computer puts something new in its space, overwriting what was once there so that it forgets permanently.

My phone always tries to offer a quick fix solution to my storage woes: just move everything to the cloud! Let your pictures float above you, suspended on the internet; pull them down when you need to look at them and then send them back up when you are done. Something about the concept feels unsound to me, though. I didn't like the idea of not having something anchored to a device, of something constantly in free fall. I picture the cloud literally floating above me: mist that someone could easily run their hand through and dissipate. And it isn't just floating above my head, it is floating above everyone. The cloud is not tangible enough, it isn't mine enough, not like my phone which has weight and my name programmed into it.

I'm a big souvenir girl; I like to have something concrete to go along with my memories: a shiny pebble from a camping trip, a jagged half of a shell, endless notes with mundanely sweet scribbles. Human memory is fleeting and susceptible to decay, so we try to encapsulate the things we

remember into something material that won't slip from our hands or our minds. What were the first etchings on a cave wall if not a mnemonic device, a memory carved into stone for posterity? What is all art and writing and story and song if not a thought or feeling made memorable, a desperate effort to not forget and to not let anyone else forget either?

In 1945, Vannevar Bush wrote an essay proposing the idea of a device called a "memex", a mechanized filing system that would store an individual's books and records on microfilm, allowing one to create associative trails between documents, which could then be summoned up at will. This was meant to crystallize the way human thought and memory works, all of the instant associations and connection without the transience. The memex would be a mind outside of our bodies, allowing us to put down the burden of memory and forget, knowing we could come back to it later.

The development of digital media and the internet was largely shaped by this notion of a memory machine, which is why its existence is defined by the act of remembering, according to Wendy Hui Kyong Chun: "The major characteristic of digital media is memory. Its ontology is defined by memory, from content to purpose, from hardware to software. . . Memory allegedly makes digital media an ever-increasing archive in which no piece of data is lost". Moving through the internet and digital media feels like traversing time. Sort by date and time created, sort by date and time last visited, sort by date and time last updated. The farther you scroll, the more pages you go back, the older the content you see, the farther from the present you stray.

The internet haunts us. There are ghosts everywhere, disembodied voices from the past that sit quietly and do not speak until they are spoken to, until you dig through cyberspace to summon them. The ghost of my past is among them, scattered and dispersed: a Polyvore account comprised of endless iterations of a skater skirt and infinity scarf, an old Facebook post offering a TBH in exchange for a like, an AOL instant messaging chat log, a class project YouTube video, a Yahoo! Answers account whose avatar is dressed like the Y2K revivals I see on the streets today. Decades-old blog posts and videos and forum conversations: an era becomes a chorus. Time is thinner here, and the past sits on the same plane as the present, separated by a quick flourish of keystrokes rather than a towering stack of years. But seeing the past and present side by side like this, split-screen or adjacent tabs, you see the difference between the two even more starkly. Wow, it's been a while, hasn't it? So much time has passed, and yet, in this moment, none has passed at all.

But there are even quieter ghosts still. When you delete something from the internet, it lingers in a server or database, out of sight but still excavatable if you know where to dig. Some voices are cut off unceremoniously, a silence following an unassuming last post, while others retreat into non-virtual life after much fanfare. Humdog, or Carmen Hermasillo, posted on the internet in 1994: "when i left cyberspace, i left early one morning and forgot to take out the trash. two friends called me on the phone afterwards and said, hummie your directory is still there. and i said OH. and they knew and i knew, that it was possible that people had been entertaining themselves with the contents of my directories." Reading online the words she left behind feels like cyberspace is ventriloquizing her absence. Her self-awareness of our reading adds another layer of eeriness, like staring at a ghost that is watching you back. Even the error 404s and the Link Not Founds are reminders that something used to be there, and what remains are little unmarked cyber gravestones. Some-

Time is thinner here, and the past sits on the same plane as the present. But seeing them side by side like this, you see the difference between the two even more starkly.

times you wonder if it ever was there in the first place or if it was a mirage, a misplaced memory that your brain concocted.

Despite the internet being premised upon its inability to forget, cyberspace is not a very sturdy place to build an archive: "Digital technologies are not perfect archival technologies; rather, they tend toward loss and disappearance," Abigail de Kosnik, Berkeley professor of New Media and Performance Studies, says. The technology we have been orienting our memory around goes obsolete startlingly fast, meaning that those in the future may look back on today as a void of memory, a "digital dark age". Today's iteration of the memex is as susceptible to rot as our minds are; a corrupted hard drive here, a decayed link there. Some have picked up instinctively on the degenerative and ephemeral tendency of the internet. We screenshot and download, take pieces of communal memory and etch them into personal drives for safekeeping, knowing that the next time we look for it on the internet it might be deleted or produce a 404 error. The Internet Archive's Wayback Machine will take a snapshot of a webpage you provide at that particular point in time. The snapshot is a partially alive husk, functional in an undead kind of way (its hyperlinks will work provided that someone has taken the initiative to tell the Machine to archive those as well—a distinctly human impetus). However, the Wayback Machine often will erase pages it had once saved because the owner of the domain name failed to renew it, making it just as susceptible to the pitfalls of the internet.

Bush's memex frames memory as something neutral and objective, untainted by our sentimental meaty brains. His notion of memory is one that is not up for interpretation, but instead is a black and white record of what was. A clinical, numerical tone tinged his conceptualization of memory as something that could be quantified and stockpiled. But as Chun points out in her critique of Bush, "memory is an active process, not static. A

memory must be held in order to keep it from moving or fading. Memory does not equal storage. While memory looks backwards . . . to store is to furnish, to build stock. Storage or stocks always look towards the future . . .” The occupied gigabytes in my phone are not memory; they are a mnemonic device, a conscious effort to build my memory and thus curate my past. They are not memory; they are the catalyst for the backwards gaze of it, the voice telling me where and when to look.

This gaze could never be anything objective or matter of fact. Our memory is diffuse and smoke-like, floating away from us and then back to us with only a smell, a sound, a word, an image that takes us to a past moment that folds into the present. The scene that the fleshy little computer in our skull conjures up will not be an “accurate”, unfiltered snapshot of reality, but will be tinted pink with nostalgia, or washed over with a sour gray, or maybe a mournful gold. Sometimes it will not be a scene at all, but a fragment, with no roots except the shadow of familiarity. I smell the thick ash of incense and am reminded of every funeral I have been to and every funeral I will ever go to, my own included. What we happen to remember moves with a kind of timelessness, insulated from the cold linearity of pastpresentfuture secondsminuteshoursdays that we move through in real time. Memory drifts, and will find us even if we are not looking for it, even if we are pointedly looking away.

NANCY DUONG