

THOUGHT EXPERIMENT

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IS RESISTANCE FUTILE? OR: HOW I LEARNED TO STOP WORRYING AND LOVE GOOGLE GLASS

I shut my front door behind me and take a deep breath, turning the fifteen-hundred-dollar flimsy plastic object over and over in my hands in the cold December light. It's a week before Christmas 2013 in Cambridge, Mass, and I am now holding the future I've been writing science fiction about on and off for the last twenty years.

The Google Glass headset is light, and without the eyeshades feels insubstantial. Except for the Lucite heads-up display prism on its pivot mount and the half-inch wide right temple that serves as a multitouch mouse pad, Google Glass is practically not there: CPU, Memory, Bluetooth, wifi, display projector, camera CCD, accelerometer; how do they pack so much into this tiny thing?

I press the "on" button inside the temple; it's inaccessible while you're wearing the unit. I slip the loop of plastic around my head and over my ears, and after a longish pause the splash screen loads, white logo type on black, ghostlike, all shimmery and rainbowed around the edges. The menu bobbles up and a scrolling list of commands tells me I can take a picture, shoot video, send a message, make a phone call, ask for directions, listen to music, or ask Google a question.

"Okay, Glass. Google, how do I get to Harvard Square?"

"You are a four minute drive from Harvard Square," the headset whispers in that cool feminine voice invented by Majel Barrett, Gene Roddenberry's wife in the late sixties. Google doesn't know I'm walking—and I find this reassuring. A tiny map with a route and a blue you-are-here dot floats in my vision, but I can't figure out how to drill into it. Directions are only available to Android users, maybe?

I still own an iPhone 5. I hear the Samsung Galaxies are pretty nice . . . no! I'm just trying this thing out. It's not worth fifteen hundred dollars, and I can return it for a full refund within thirty days. The mass production models will be out in a few months and will cost four or five hundred; I'll buy one of those—maybe. If this isn't awful, and it very well might be. For now, I'm only test-driving the future.

"Okay, Glass."

Every voice command is prefaced by this bleat of submission, like clicking the TOS checkbox before getting on Facebook or Linked-In or whatever digital-future thing you have no choice but to use. Okay, Glass. I'm here. I'm doing this. It's time for wearable computing.

I'm trying to be okay with this, Glass.

I do not want to live in the Google-Opt-Out-Village, but the head tilt activation has toggled off and my unit keeps falling asleep, and the only way I can wake it is by pressing the button at my temple; the headset makes a loud taking-a-photo click sound and there are wrinkles of fear in the brows of people streaming past me on the sidewalk.

I post every photo to Google Plus, violating everyone's intuitive-but-not-legal sense of a right-to-privacy willy-nilly, streaming image data over Bluetooth to my iPhone into the 4G network onto the web. I do it because I can . . . and the FB link is balking; I haven't configured it properly.

I'd rushed through the set-up, and plunged out of the house, making my way to

Harvard Square, figuring I'd just instantly be able to use the thing on the fly, and instead, I'm making a nuisance of myself. I'd just assumed it would be perfectly intuitive.

Google Glass fail!

I have to go home, look at a real computer, and try to figure out how the hell to get it to stop falling asleep. I slip the headset into my backpack with a sense of relief.

People stop looking at me funny.

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I remember the first time I heard about wearable computing in the real, non-SFnal world; I thought it was a joke. At my lousy job-job in the nineties, we laughed about geeky guys with sawed-in-half keyboards strapped to each thigh and huge plastic wrap-around sunglasses, draped with wires and batteries, stalking around—emissaries from a ridiculous future.

Okay, Glass, you're not a joke anymore. Maybe.

William Gibson jacked us into Cyberspace. Neal Stephenson wrapped us in the Metaverse. The pair illuminated the post-progressive dream, our anarcho-capitalist future, but afterward distanced themselves and this flavor of dystopia. Okay, Bill; okay, Neal. Okay, privatization of public space. We get it.

Whether we want to or not.

David Brin found a fictional upside to the always-pointing-a-camera-at-everything world of the wearable; he wrote a book about it, *The Transparent Society*, calling that upside sous surveillance. Your pre-digital right to privacy may have expired, but ubiquitous networked cameras can be pointed in both directions, up and down the power hierarchy. In his novel *Earth*, elderly wearable users help police a country of aging boomers in a future as positive as an intelligent man could imagine in the nineties. Sure, Big Brother is watching; but you can watch him back, and perhaps, hold him accountable.

But my version of Google Glass isn't so much about speaking truth to power as it is about doing stuff I can do with my smartphone without taking a glass slab out of my pocket, like a sane, ordinary person. Now I can do my smartphone things while looking at a smallish translucent screen hovering somewhere in front of me.

My second walk outside Googled-up is still embarrassing, like being in public in a Halloween costume. Somehow, I confuse Glass by saying "Okay, Glass" one time too many, and Google displays an abstracted article from the *New Yorker* about Glass. I read it self-referentially as I walk along, because I can. After a minute, I stop walking. I'm scrolling through the article with my fingertip on my temple. I'm reading the *New Yorker*, and people are glancing at me, and away, thinking the word perhaps coined in Silicon Valley, now spread to a half dozen cities packed with self-important, privileged technorati.

They're thinking the word Glasshole, because I'm being one.

I let the screen fade away and walk the rest of the way to Harvard Square, with nine out of ten people acting like the disheveled man with the webcam strapped to his temple is a Perfectly Normal Thing; because they know that it's going to be, very soon now.

And there's nothing anybody can do it about it.

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Long before the wearable, military SF had its powered suit with the heads-up display, from *Starship Troopers* to Tony Stark's AI powered Iron Man, but you didn't wear your armor all the time. Uhura had her Bluetooth headset, in the original *Star Trek*, but she didn't wear it off the bridge; it was the size of a salt shaker, after all, and probably made her neck hurt, and let's face it, it looked silly.

Glass, like the Bluetooth headset, is supposed to stay on your head pretty much all

the time. That's the point of it.

And it looks sort of . . . silly.

It makes you wonder how the first eyeglass wearers felt. The first people who strapped tiny clocks to their wrists. What it felt like bopping along with that original Sony Walkman. One wonders about a time when a person walked from place to place doing that and only that, walking from place to place. Maybe you had a daydream. Maybe you hummed a tune.

Now people stream past embroiled in Bluetooth headset conversations with unseen ghosts in a way that would have signaled advanced schizophrenia only fifteen years ago. People gaze into their tiny screens everywhere, all the time.

And now my screen is floating in front of me; to escape it, I have to take something off my head. My default, now, is Screen On.

The smartphones all around me look like pocket watches.

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"I've been thinking of starting a vigilante group that would shoot Amazon drones out of the sky," the owner of a small gift boutique near Porter Square told me, her eyes calm, zen-like, her smile warm.

I laugh. "Why?"

"Just think of the sky, full of the things, whirring around everywhere." She sighs. "But, really, I think it's probably too late."

"It feels inevitable," I say. "It's hard to see how we'd stop it. It's the Zeitgeist—"

Glass bleeps, and an ad for a nearby restaurant obscures her face. I'd turned on Google Now, a location aware service, but this is the first time it's interrupted me. I've Minority Reported myself.

"Really?" she says.

"Excuse me," I say.

Glasshole. I tap the ad and Glass makes its pitch by talking at me, buzzing from my right temple, a photo of a Thai village floating in my right eye. I do like this restaurant, and I am hungry. Hm. Is there a coupon? I drill into the ad, causing it to read itself to me again, and I can't figure out how to stop it. The boutique owner has vanished.

My teenage kids, out shopping with Dad being a Glasshole, are pretending not to know me, and they hate Thai food, and it has started to pour 33 degree rain, so we go to the pizza place next door, where the immigrant owner steadfastly refuses to acknowledge the ridiculous object on my head.

I order a small cheese pizza and a calzone. The kids use their smartphones. After a few minutes learning how to use the temple piece as a multi-touch input device, resizing web pages full of recipes by spreading and pinching my fingers, panning around in the tiny window, I give up on Glass, take the headset off and go back to my smartphone.

Now we are normal people again.

I resent having to look up the recipe I was reading a second time, though; I had it in Glass and now I have to search for it again? What am I, an animal? I'm guessing with an Android device, Glass and smartphone would be on the same page, so to speak.

I'd planned on returning the beta device on my head. I'm just using it to write this article, to see what it feels like, to use this tech, which has featured prominently in stories I've sold this year to *Asimov's* and *The Magazine of Fantasy and Science Fiction*. I'm getting rid of it.

Unless of course, Glass becomes the latest thing I never knew I wanted that I suddenly can't live without.

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Photo by Jay O'Connel with Google Glass

Hostility to Glass, to the smartphone, to the always on, always connected culture, is as omnipresent as the devices themselves. Ironic social media memes compare smartphone immersion with the zombie apocalypse. Everyone wants to Be Here Now, connect and relate and experience downtime, *in the abstract*, but waiting in line at the DMV or sitting in the doctor's waiting room, do you meditate, page through the ancient *People* magazine, or pull out your tech slab and get on with your life, already in progress?

Glass is a networked camera in a different league from the smartphone. Glass's plainly visible lens acts as a third eye, seeing what you see. If you're not wearing it, there's no way to be sure if Glass is on or off, taking still shots, making video clips or broadcasting a live feed.

The feed, the Hangout™ feature, which allows distant others to see what you're seeing, is the most science fictional aspect of the headset. Again, you could use FaceTime or Skype and hold your smartphone at arm's length, but people would notice that and could decide how to react.

With Glass, you never know; is that guy live? Is he taking my picture or shooting video of me? Is he a viewport for a group of people spying on me remotely?

"I value anonymity, or at least obscurity. I'm no Luddite but I want a cloaking or jamming device for this shit when it's around me," a friend said after seeing me in Glass. So far nobody has snatched the unit off my head, or threatened to punch me, but I know this happens to Glass wearers. Being as close to MIT as I am probably explains the tolerance, or maybe I've been lucky.

The culture has been leery of public photography since 9/11, with the long established right of taking photographs in public spaces under attack almost everywhere. The privatization of public space adds another wrinkle; you have a right to take a photo in City Hall or the subway, but not in an enclosed shopping mall or retail outlet. In practice, this anger at public photography is reserved for people with bigger, professional-looking gear; smartphone shots are mostly tolerated. People with pro cameras are presumably making money and should be handing out model releases, getting permission, but for noncommercial use, any other kind of imaging in public has been,

and continues to be, fair game.

You do not have any expectation of privacy in a public space.

There is nothing illegal about taking photos of every passerby and posting those shots to your website or social media account. Clip-on life-logging cameras that take a still every thirty seconds are available now from companies like Narrative. Moore's law, cheapening the storage costs of digital imagery every year, makes this not only possible, but inevitable. The clip-on-the-front-of-your-shirt-pocket life-logging tool is still less aggressive, less in-your-face than Google's Glass Third Eye.

What social norms will emerge around wearable computing? What will we tolerate? Where will we draw the line?

It's all up in the air. Google has promised to keep facial recognition software off the platform, but as Glass is basically an Android device, this promise is more or less meaningless. Apple, king of the proprietary walled garden, has its products rooted and loaded with bootleg software regularly; Android's more open architecture and larger development community will doubtlessly be able to bypass any strictures the company puts on the device.

Is resistance futile? David Brin thinks it is. My next *Asimov's* story features a stealth wearable with facial recognition, making Google's announcement feel distinctly odd to me. "I'm not dystopian," Google Glass assures us. "Pay no attention to the science fiction writers. They're depressives, nay-sayers, malcontents."

And of course, frequently, we get it all wrong. Every day the popular culture renders obsolete a hundred science fiction novels. The Lensmen piloted spacecraft with slide rules, Heinlein's *Moon is a Harsh Mistress* is full of pay phones and time-shared computing, and we just don't know what we're going to do with wearable computing yet.

But we can't stop thinking about it.

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Ten days of Glass and I'm getting used to having an Android phone strapped to the side of my head. It's freezing in Cambridge and with my long leather coat, shaved head, and Google glass, I look like a Jim Steranko illustration, a retired SHIELD agent gone thick in the middle.

I can initiate and make phone calls begun with web searches, send messages, take photos and videos entirely hands free, or with a tap and swipe at the temple. I'm used to the blurry thing hovering in my right visual field; I can look under and around and through it. My progressive contact lenses, bought for working with Glass, have a much better field of view than my glasses did, so even losing what I do to Glass I'm seeing better, seeing more, than I have in decades.

The progressive lens tech is science fictional; a bull's-eye pattern of different corrections presents two views to my brain simultaneously; one near-blurry, far-sharp; one near-sharp, far-blurry. My brain disregards the blurry image, attends to the sharp one, depending on where I'm looking. About 70 percent of the population can learn how to do this. The progressives work well, except in low light, where my wetware fails and everything turns blurry.

But everything important in my life is now self-illuminating; the Google Glass heads-up display, my smartphone screen, my iPad and computer, so, what the hell do I care? I can see. I flick my head up to toggle on Glass, and ask Google questions and it seems to have better answers than Siri ever did. Siri seemed like a novelty. Glass feels like the future.

I'm walking in a light drizzle in the cold night and I've called ahead to order Chinese food for dinner, all with Glass, without taking my hands out of my pockets. Last night I uploaded a hunk of my music collection, ten thousand songs, to Google Play, and I figured I'd give that a shot, wishing I'd popped for the damn stereo earbuds. I

have a mono earbud. Pathetic. First-world problem.

"Okay, Glass. Play Beatles."

I let it do an auto mix, whatever that is.

And the music I've bought and paid for a half dozen times over the years, music I can hear in my head without any device at all, comes alive, from the album *Sgt. Pepper*, which will always feel to me like 1969, like vinyl and Day-Glo Peter Max posters and Marvel comic books and cars without seat belts and sexy women in cat glasses.

Paul McCartney sings in my right ear, saying that I've got to admit, it's getting better. (John adding, almost inaudibly, that it can't get any worse.)

I think: Oh, well played, Google Play. Well played.

I guess we'll see about that.

Jay O'Connell has been fiddling with computers since the seventies, when he played Space War on a time-shared DEC 10 while his father worked on AI for the Rand Corporation. Jay was psychoanalyzed by ELISA, pioneered vanity e-publishing on USENET, made podcasts before the iPod, and is immortalized in James "Kibo" Parry's HAPPYNET Proclamation. He lives in Cambridge, Massachusetts, with his wife, children, and complete array of sleek, overpriced Apple Products.