Google Glass Explorer Tom Emrich was quick to adopt the latest wearable technology, but still has reservations about its future after wearing it for more than a year.

We’ll wear just about anything on our wrists. From watches to jewelry and emblems of our favorite charities and causes, humans have never been afraid to slip on a statement. We’ll even wrap our wrists with products that supposedly improve our health and our performance in the absence of any scientific proof that they work.

But our faces are a different story. That, along with a multitude of other issues, from battery life to lack of apps, has fogged up the future of Google Glass. After two years in testing, it still doesn’t look ready for the mainstream, and even the technology’s biggest proponents seem to have second thoughts.

Is Glass about to hit its stride, or about to run out of steam?

**An expensive proof of concept**

In November, Reuters reported that nine out of 16 Glass developers it contacted had ceased development “because of the lack of customers or limitations of the device,” while three more have abandoned consumer-centric apps to focus on business projects.

“It’s always had a hard road compared to the other wearables on the market because it’s so new.”

Used Google Glass developer kits, which originally sold for $1,500, often show up on eBay at less than half price, or no bids at all.

Google cofounder and Glass evangelist Sergey Brin recently showed up to a red-carpet event without his precious specs.

Tom Emrich, an independent technology consultant, founder of We Are Wearables, and early Google Glass Explorer, thinks the sheer unfamiliarity of Glass may have something to do with its struggle.

“When you compare Google Glass to the fitness trackers, smart watches and other wearables, it’s easy to pronounce [it] as dead or not as successful,” says Emrich, “But it’s always had a hard road compared to the other wearables on the market because it’s so new.”

But Emrich has concerns with Glass’ function, too. While he loves being able to document his life hands-free with the built-in camera, for instance, he laments the fact that it’s his favorite feature — “It’s a little sad, because it’s capable of so much more than taking pictures.”

Battery-life presents an even bigger issue for him. “A day-to-day life tool can’t last just two to three hours,” Emrich points out. “It’s especially problematic if you wear a prescription. Needing to take off my glasses to charge means I will be blind during that charging time. [It’s that, or] I have a pair of glasses with a dead piece of technology on them. That alone doesn’t bode well for the technology. It needs to last at least until I get home.”
Consumers be damned

If Glass is looking more and more like a bust for consumers, does that mean it’s game over?

Not necessarily. There’s always the workplace. Unlike Apple, Nike and FitBit, which have done little to embrace the enterprise potential of their products, Google Glass developers are thinking about the face of business.

Google Glass developers are thinking about the face of business.

Jake Steinerman is another Google Glass Explorer and also the co-founder of DriveSafe, a start-up focused on delivering "wellness data" to professional drivers via Google Glass. One of the core DriveSafe functions is the ability to keep drivers awake ("OK Glass, keep me awake") by sensing drowsiness or distraction.

Steinerman believes that Google Glass will actually prove to be the exception to the rule as far as mass-market adoption is concerned. “Traditionally, technology has caused the consumerization of the enterprise IT market,” he points out. “With Glass I think we’ll see that flipped – companies will, and are, finding indispensable ways to leverage Glass as a platform.”

Emrich agrees, saying, “Where these devices are used as tools, we’ll see them adopted much faster than on the mainstream side.”

Safety seems to be a common theme when it comes to Google Glass at work. While DriveSafe is attempting to improve driver safety, Michigan-based Plex Systems is looking to do the same for factory floors. “We see manufacturing as the first killer app for Google Glass,” said research and development vice president Jerry Foster said at the launch of its Glass pilot project in June. The idea is that plant workers will have access to all the information they need to do their jobs, hands free.

Perhaps this notion of being apprised of critical information, when you need it, will be the key to adoption. Steinerman thinks it will. “Because of its placement on your head, close to your eyes, it can deliver information that traditional smartphones would never be able to produce,” he says. “The ability to have a microphone close to your mouth, always listening and waiting to deliver information to you, I have found to be extremely valuable.”

Of course, always having information in your field of vision can be overwhelming, too. “What I don’t like are the notifications, because they aren’t contextual and there’s no way to filter them based on what I want to see and what I don’t want to see,” Emrich told us. “Google Glass could have solved the ergonomic problem with having to glance down at a smartphone constantly, yet having every single text message and email pop-up is not helpful.”

Invisible is key. If there’s one thing everyone seems to agree on, it’s that technology behind Glass will need to become even more invisible before people buy in. “Once the technology disappears in the eye of the consumer, no pun intended, I think there will be a lot less pushback than what we’ve seen in the last one or two years,” Steinerman says.

That could mean anything from new designs to new, more compact technology inside. Interestingly enough, a new partnership with Intel means its chips will power the next version of Glass, which could move things in the right direction.

Will it be enough to push knock Glass of its awkward podium and into the mainstream? We’ll see.
Broken Glass: What Google Inc. Doesn't Want You to Know by Tim Brugger, December 14, 2014
[http://www.fool.com/investing/general/2014/12/14/google-glass-what-google-inc-doesnt-want-you-to-kn.aspx]

In the world of technology, finding the "next big thing" is a never-ending challenge -- one Google co-founder and CEO Sergey Brin has proven he is more than willing to accept. However, being on the cutting edge naturally involves great risk -- a leap of faith, of sorts, because failure is such a strong possibility. And that may be the ultimate lesson from Google Glass.

The Jetsons-like shades have popped up at company gatherings for the past few years and despite initially creating quite the splash, it's apparent the time has come to throw in the towel on this idea -- even as Brin and the Google Glass team continue to espouse the many wonders of the technology.

When to say when
Though the device was first seen in April 2012, Google Glass did not become widely available until this past summer -- even then, only U.S. and U.K. buyers (over the age of 18) could purchase the device for the hefty price of $1,500. Prior to this release, only early test users, dubbed Google "Explorers," could get their hands on Glass. The technology is currently still in beta mode as engineers fine tune the wearable device, so Google has once again delayed a full release until sometime in 2015.

So what's the holdup? There are several concerns, whether or not Google wants to admit to them. It has quickly become obvious that the market Brin and team envisioned for Glass simply isn't there. More importantly, the app developers are beginning to recognize this as well. Though the company isn't sharing specifics on sales of Glass, most estimates suggest it is selling in the thousands, not millions.

With that said, commercial applications for Glass are emerging -- doctors sharing real-time patient data and heads-up displays for speed and alerts in the transportation industry are often mentioned, among others -- but a niche market is unlikely to produce the demand needed to warrant Google's continued time or investment.

To date, 100 apps are available for download on Glass, including popular names such as Facebook and OpenTable. But the release of new apps has already slowed significantly, and many developers are giving up on the project.

Why? Like most outside the walls of Google HQ, developers recognize there's simply not enough broad consumer interest to warrant the work, and many find the limitations of Glass itself -- battery life, data access, etc. -- not worth the headache. Internally, key members of the Glass team have also stepped away from the project, yet another warning sign that the company has chosen to shrug off.

What's not to love?
When asked why he shelved his specs, a former Glass app developer said, "If there was 200 million Google Glasses sold, it would be a different perspective." But there is not, nor will there likely ever be in its current form, so he and other developers are shifting their focus to alternatives such as Facebook's virtual reality headset, Rift. Facebook CEO Mark Zuckerberg hasn't been shy in discussing Rift and its applications beyond VR gaming, and developers who see an opportunity for "smart" headsets are buying in.

The hurdles Glass faces began the moment the project was made public, including significant privacy concerns that led entire industries to ban Glass from their premises. Safety issues also arose, akin to texting while on the go. Then there's the less tangible, but very real, problem with Glass: its looks. Yes, Google has partnered with famous names in the fashion industry, but even designer frames won't remove the "nerdy" stigma associated with the device.

When you add up its laundry list of technical limitations, shrinking developer base, limited market, privacy concerns, and unstylish looks, it becomes clear the Google Glass experiment may be too far gone.