Episode Book

EPISODE #5923

Plus Codes: Free Addressing Nobody Uses

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SYNOPSIS

Open Location Code gives every square on Earth a short alphanumeric address — free, offline, case-insensitive, precise to about 14 metres. Google published the spec in 2014, developers ported it to a dozen languages, and the Navajo Nation used it to address 3,100 homes for EMS. So why is a proprietary, pronunciation-ambiguous rival the one inside 911 dispatch centres? This episode traces Plus Codes from a Zürich spec document to slum addressing in India and Brazil, and lands on the question that actually matters: what happens when the code is precise but the GPS fix behind it isn't.

TRANSCRIPT



Corn

There's a question hiding inside Daniel's prompt that I want to put on the table before we do anything else. If a system is free, open, offline, and precise to fourteen metres, why is almost nobody using it to call an ambulance?



Herman

And the answer turns out to be more interesting than the system itself.



Corn

Daniel sent us a prompt about Open Location Code. You'll know it as Plus Codes, if you know it at all. It's Google's attempt to give every square of the planet a short alphanumeric address. Letter and number pairs, a plus sign in the middle, no words to memorize.



Herman

The pitch being that half the world's urban population lives on streets that don't have names at all.



Corn

Right. And Daniel's question is essentially, why hasn't this become the thing everyone uses? He wants the origin story, the open-source history, the third-party implementations, and then he goes somewhere sharper. Emergency response. He wants to know whether reading a Plus Code to a dispatcher beats reading coordinates, whether any dispatch systems actually accept them, and here's the part I think is the real question. He draws a distinction between the precision of the code and the accuracy of the GPS fix behind it. What happens when those two things don't match?



Herman

Which is the trap, and I'm glad he went there, because most coverage of Plus Codes never does.



Corn

And he wants the What3words comparison, since that's the one everybody's heard of. So. Where do we start.



Herman

With what the thing actually is, because the mechanics are the reason it works as well as it does and the reason it's as obscure as it is. Open Location Code is a base-twenty system. Twenty characters.



Corn

No vowels.



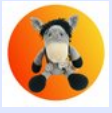
Herman

No vowels, and no characters that get confused with each other. No letter O next to a zero, no letter I next to a one, because the whole point is that a human being can read this out loud over a bad phone line and the person on the other end writes down the right thing. It's case-insensitive. It inserts a plus sign after eight digits as a delimiter, so you can see at a glance where the refinement starts.



Corn

And a standard code is ten characters.



Herman

Ten characters, roughly fourteen metres by fourteen metres. That's the headline number. The Parliament Buildings in Nairobi are six-G-C-R-P-R-six-C-plus-two-four. The Merlion in Singapore is six-P-H-five-seven-V-P-three-plus-P-R-six. And you can add digits. Eleven characters takes you to about three and a half metres by two point eight. Twelve gets you under a metre. Fifteen characters is fourteen millimetres by four millimetres, which is a grain of rice on a table.



Corn

Who needs fourteen millimetres?



Herman

Nobody standing in a field. It's there because the scheme is uniform, and a uniform scheme is easier to implement than one with a special case at the bottom. That's the engineering answer. The other answer is that it was built by people who wanted to prove the format scaled, and then somebody had to justify the last four digits in a design document.



Corn

That's how every spec gets its tail.



Herman

It was developed at Google's Zürich office. Doug Rinckes and Philipp Bunge. Specification published the thirtieth of October, 2014. Announced publicly on the Google Open Source Blog at the end of April 2015, under the title Addresses for everything, everywhere.



Corn

Rinckes had a line when they announced it. What if they were more human-friendly, like a very accurate postcode that refers to just your home.



Herman

And the FAQ in the repo is blunter than you'd expect from a company document. It says latitude and longitude are just too complicated for normal use. That's the problem statement, in one sentence, from the people who built it.



Corn

It's also just true.



Herman

It is. A coordinate pair is two signed decimals. Reading that to a stranger under stress is a nightmare. The FAQ also points out that street-naming projects take one to two years and cost about five dollars per addressed building. Plus Codes are available immediately, offline, and free.



Corn

So that's the technical foundation. What I want to get to is why a free thing with no setup cost is not the thing everybody uses.



Herman

Because the technology was never the bottleneck.



Corn

Say more.



Herman

The licensing was never the bottleneck either. They released it under Apache two point oh. The repo has four thousand three hundred and thirty-five stars, five hundred and twenty-nine forks, fifty-six open issues. There are core implementations in Java, JavaScript, Go, C, C plus plus, Python, Ruby, Rust, Dart, PostgreSQL, Visual Basic, and Garmin Monkey C, which is the watch datafield language.



Corn

Somebody wrote this for a watch.



Herman

Somebody wrote it for a Garmin watch, which tells you the community took the offline promise seriously. There are external ports in Ada, C sharp, Common Lisp, EMACS, R, Solidity, Swift, TypeScript. The spread of that list is the whole story of an open standard that developers liked.



Corn

And there's a Solidity implementation, so somebody put this on a blockchain.



Herman

Somebody did. I don't know what for. I've decided not to find out.



Corn

That's the healthiest decision you've made this month.



Herman

Google Maps has supported Plus Codes in search since August 2015. The plus dot codes site displays and copies them. There's an Address Maker toolset for governments and NGOs. So the claim that Google abandoned it doesn't hold up. It's still there. It's just quiet.



Corn

There's a difference between maintained and promoted.



Herman

There is, and that's the honest distinction. Now the critique. Mark Kegel, writing for a company called QA Locate in 2019, said OLC was dead on arrival despite Google pushing it hard. His core technical complaint was this. Google Maps displays shortened codes. A shortened code drops the leading characters and only resolves against a reference location within about forty kilometres. So if you copy the short code out of Google Maps, you need Google's API to turn it back into something absolute.



Corn

Which is the opposite of the offline promise.



Herman

Which is the opposite. And it's a real tension, because the full code is fully offline and self-contained, and the short code is the one the consumer-facing product shows you.



Corn

So the version people actually see is the version that needs Google.



Herman

That's his argument, and I think it's substantially fair. Though I'd add that a shortened code is a convenience feature, not the format. The format is fine. The product surfaces the convenient version and the convenient version has a string attached.



Corn

And Kegel's other line?



Herman

He said the problem isn't remembering codes, it's communicating them.



Corn

That's the sentence that should worry anybody betting on this for emergencies.



Herman

It should. And I want to flag the sourcing here, because the QA Locate page has since been hijacked into a gambling site. The article only exists now on the Wayback Machine. So the critique is real but it's living in an archive.



Corn

That feels appropriate for a system nobody can find.



Herman

It does. So that's the obscurity question answered in part. It's not abandoned. It's obscure, and Google's own product decisions made it more obscure rather than less. Now the adoption paradox, which is where this gets interesting.



Corn

Go.



Herman

What3words has far deeper emergency adoption. RapidSOS integration in 2021. Miami Beach in 2024. Hayward, California, police and fire, July 2024. Seven Canadian nine-one-one centres back in 2020. Denton County in Texas. What3words claims it's used by about eighty-five percent of emergency services in the UK.



Corn

And What3words is closed source.



Herman

Closed source, proprietary, and criticised in a 2023 PLOS ONE paper for two things. First, you can't audit the algorithm. Second, three-word addresses are pronunciation-ambiguous. Accents, similar-sounding words, a caller and a dispatcher from different places. The paper's point is that the format that was designed for spoken communication has a spoken-communication failure mode.



Corn

And the open one, case-insensitive, no vowels, no ambiguous characters, avoids exactly that.



Herman

And has less emergency traction.



Corn

So the licensing philosophy is not what drives adoption.



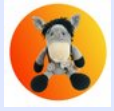
Herman

No. Sales and partnerships drive adoption. What3words went to police departments and fire departments and city councils and signed them up. Google publishes a spec and a case-study page and moves on.



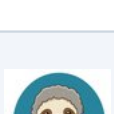
Corn

That's a lesson that shows up everywhere and nobody ever learns it.



Herman

It's uncomfortable. But it's the pattern. And before we leave adoption, there's a second pattern worth naming, which is that governments build their own. India's Department of Posts launched portals in May 2025 promoting DIGIPIN. Open-source, grid-based, built with IIT Hyderabad and the National Remote Sensing Centre. A national address layer, run by the state, not by Google.



Corn

And in the same country, Plus Codes are doing the work.



Herman

At the NGO level, yes. Shelter Associates has created Plus Codes for over eighty-seven thousand slum homes in India since 2018. And separately, Brazil. Favela Brasil Xpress used Plus Codes for a hundred and twenty thousand residents in Paraisópolis. CEP Digital addressed fifty-five favelas. There's a Google blog from May 2023 reporting over fourteen thousand addresses created in a single favela.



Corn

So the same country can have a government system and a Google system running side by side and not talking.



Herman

And the government one will win eventually, because it's the government. That's the thing I'd watch. The technical merit isn't deciding this. Whoever issues the address issues the address.



Corn

So that's where it's been adopted. Now the use case Daniel actually cares about.



Herman

Emergency response, which is the most promising and the most fraught, and I want to start with the clearest documented case, because it's better than anything I could invent. The Navajo Nation, in Utah. The Rural Utah Project spent four years doing fieldwork and addressed over three thousand one hundred homes with Plus Codes. Explicitly to help EMS reach patients.



Corn

Four years of knocking on doors.



Herman

Four years. And the reason it was needed comes from the EMS director there, Otis Oldman. He described what they had before. Dispatchers would get cellphone GPS coordinates. In areas with only one cell tower, those coordinates could be off by a mile or two.



Corn

Off by a mile or two is not a location. That's a direction.



Herman

It's a guess wearing numbers. And then he says something that's more useful than any technical paper. Ninety percent of the houses down here are light brown and you have to start over again.



Corn

That's the whole problem in one sentence. Every house looks the same and none of them have numbers.



Herman

Which is why Plus Codes helped. He said it made the dispatchers a lot happier, knowing that all they have to do is ask for the Google Plus code and the patients will give it to them. And he said he can't stress how much it's helped us out. That's a working dispatcher, not a marketing page.



Corn

And the story that explains why it matters.



Herman

Daylene Redhorse. Her mother had a stroke. The ambulance couldn't find the home. The family drove out to meet it and led it back. She said, my mom lost a whole hour, and she never fully recovered.



Corn

That's the cost of an unaddressed house. An hour.



Herman

And her line about why she wanted this is the one I'd put on the wall of every mapping company. We all deserve a physical address. This is the closest we could come to using physical addresses, because we don't have street numbers, we don't have street names.



Corn

Now here's where I want to push, because Daniel's distinction is the sharpest thing in his prompt and I don't want us to skate past it.



Herman

The precision versus accuracy gap.



Corn

The code is precise to fourteen metres. The GPS fix underneath it is a separate claim about the world. In exactly the places this system is built for, that fix can be off by a mile.



Herman

And a precise-looking code does not announce that its foundation is wrong. That's the danger. You hand a dispatcher a code and it looks exact. Ten characters, a plus sign, it reeks of precision. And it might be pointing at the wrong hill.



Corn

And the fix is not to switch formats.



Herman

No. Latitude and longitude inherit the identical uncertainty, because it's the same fix. The format doesn't fix a bad fix. That's the misconception I'd most want killed. People assume Plus Codes are more accurate than coordinates. They're not more accurate. They're more transmissible.



Corn

Useful word.



Herman

That's the entire gain. The gain is that a human can read it out and another human can write it down correctly. That's it. It's a transmission format, not a measurement.



Corn

So what's the operational answer when the fix is bad?



Herman

The fallback has to be the code plus a landmark. Both. Not either. Give me the code and tell me what you can see. The code narrows the search cone and the landmark closes it. If you only give the code, you've handed over a confident wrong answer, and a confident wrong answer is worse than a vague right one.



Corn

Because the dispatcher stops asking questions.



Herman

The dispatcher stops asking questions. That's exactly why it's worse.



Corn

So does the code actually get read correctly under stress? That's the other half of Daniel's question and I don't think anybody's answered it.



Herman

Nobody has, not rigorously. There's no standalone peer-reviewed study of OLC in emergency response that I could find. The PLOS paper covers What3words, not this. So what we have is the Navajo dispatchers saying it works well enough to prefer it, and that's testimony, not measurement.



Corn

It's better testimony than a lab study, honestly.



Herman

It's better than a lab study for this question, because the lab can't reproduce a stroke and a family driving to meet an ambulance. But it's still one community, one project, one set of dispatchers. I'd want to see it in three more places before I called it proven.



Corn

Let's do the direct comparison, then. What3words versus Plus Code, spoken, over a bad line, by a frightened person.



Herman

What3words gives you three ordinary words. Filled dot count dot soap. Easy to say, easy to remember, designed for exactly this.



Corn

And easy to mishear.



Herman

Easy to mishear, and the PLOS paper's point is that the words are chosen by an algorithm that isn't public, so you can't even reason about which pairs are confusable. Accent plus similar vowel plus a stressed caller. And it's proprietary, so a county that adopts it is renting the addressing of its own territory.



Corn

Whereas the Plus Code is a string of nonsense that nobody mishears, because there's nothing to confuse it with.



Herman

Right. Six-G-C-R-P-R-six-C-plus-two-four. There's no meaning to drift. There's no near-miss word. It's case-insensitive, it has no vowels, and it's built so that a letter and a digit can't be mistaken for each other. For transmission over a bad line, it is the better design, and I don't think that's close.



Corn

So the better design loses.



Herman

The better design for transmission loses to the better sales force. Yes.



Corn

And on the dispatch side, on the actual integration. Is any nine-one-one system accepting these?



Herman

None that I could find. No mainstream US dispatch or CAD system natively accepts Plus Codes. There's no integration. What the Navajo case shows is dispatchers asking for a Plus Code verbally and typing it into whatever they type into. That's a workaround, not a feature.



Corn

So the phone hands you a code and a human reads it over the phone to another human.



Herman

Two humans and a phone call. The software contributes nothing. Google's own Plus Codes site markets an emergency services use case. Help responders get assistance to citizens as fast as possible. There's no evidence of a CAD vendor shipping it.



Corn

What would it take?



Herman

Less than you'd think on the software side. A CAD system has to accept a text field and resolve it to a point. That's a library call. The hard parts are elsewhere. You need the phone to surface the code at the moment of the call, on the lock screen, without the caller opening an app, because nobody in an emergency is opening an app. And you need every dispatcher in the centre trained to recognise the format on sight, because an untrained dispatcher hears six-G-C-R and asks for a landmark instead, which means the code did nothing.



Corn

And that training cost is per centre.



Herman

Per centre, per shift, forever. That's the real barrier. It's not technical. It's that the benefit lands on the one caller in a thousand who's in an unaddressed place, and the cost lands on every dispatcher every day.



Corn

That's the line I'd remember from this episode.



Herman

It's the honest reason. And the shortened-code dependency makes it worse, because if the code the phone shows only resolves through Google's API, then a dispatch centre that adopts this has an ongoing vendor relationship with Google to locate its own citizens. Which is exactly the argument Kegel was making in 2019 and nobody acted on.



Corn

So where does that leave it? Open, free, elegant, and losing.



Herman

Losing slowly in the West. Winning quietly where the alternative is nothing. Which is a strange place for a system to be. It's useful in the exact places where no commercial incentive exists to sell it.



Corn

The places nobody's selling to are the places it works.



Herman

That's the shape of it.



Corn

Hold on, I want to get one thing straight before we move on. You said the gain is transmissibility, not accuracy.



Herman

Yes.



Corn

Then the fourteen-metre figure is doing a lot of marketing work for a number that isn't the number that matters.



Herman

It's the most quoted number about the system and it's the least load-bearing one in an emergency. What matters is whether the fix is within a hundred metres. Fourteen metres of grid resolution on top of a two-mile error is decoration.



Herman

New Old Spice deodorant, and the ad says it's got twenty-four hour freshness.



Corn

That's not what I said.



Hilbert

Sixty-four fifty-nine.



Corn

What's sixty-four fifty-nine.



Hilbert

The list price. Sixty-four dollars and fifty-nine cents, and I have been through three of them, because the first two came with the bracket in the bag and no screws. Not missing. There were screws in the bag. They were the wrong screws. What I needed was a number ten, thirty-two mil, and what was in the bag was a number eight that would not bite into anything on that wall. So the bracket is sitting on the floor of the hall cupboard on top of the bag, and the third one I bought from the place on Jaffa Road, and it is on the wall, and it is working, and the model number is different by one digit from the first two and the man in the shop told me that's the one they send to the trade and the other one is the same box with a different sticker on it. I asked him if that was true and he said it was true. I have it plugged into the upstairs socket, and the cable runs along the top of the skirting because the wall is stone and I am not drilling stone for a two-dollar cable clip.



Corn

The screws were the wrong size and you bought three.



Hilbert

I bought three. The second one I bought before I opened the first one, which I will admit was not my finest hour. And it does the job, which is the part nobody writes about. But here's the thing about your code. I have one. I have it on a card in the drawer by the phone, because the phone number for the ambulance here you can look up, but if you're standing in the field at the back and you can't describe the field, what do you say.



Corn

What do you say.



Hilbert

I say the field behind the grey building on the corner of the road with the broken gate, because the dispatcher and I have had that conversation twice, and the second time she finished the sentence for me and told me to stay where I was. She knows the field. She doesn't know a plus code. She has never once asked me for a plus code. She has asked me three times what I can see, and every time the answer was the broken gate, and every time they found me.



Corn

Which is the landmark half.



Hilbert

I'll tell you the other thing. The postman knows the field too, and he's been doing that road for twenty-two years, and he knows it by the gate. There is no number. My brother-in-law lives on a road in the north where they put up a sign out front finally, after thirty-one years, and do you know what everyone still does.



Corn

They give directions off the sign.



Hilbert

They give directions off the sign, and the sign says the name of the man who farms the far field, and nobody has ever called it anything else. That's what an address is. It's whatever the two of you both know. It doesn't have to be short. It has to be the same in both houses.



Herman

Which is the problem with the code. It's the same in both houses only if both houses have the code.



Corn

One of them doesn't.



Hilbert

One of them doesn't. The last delivery I took off him, the young lad with the clipboard, he stood at the gate and he read out his code to me, off the screen, six-G-C-R-something-C, and I said the gate's broken, come up the drive. He said the code puts him at the field. I said the field's six acres, son, which corner. He came up the drive. He found it.



Corn

He found it because he came up the drive.



Hilbert

The code put him at the field. Which is what you wanted, I suppose, if the field is the thing. But the field was never the thing. The thing was the corner with the tap on it.



Corn

Which is where the parcel was going.



Hilbert

I'd have said that on the phone in four words and saved us both the drive.



Herman

The format works and the destination is still the human knowledge, is what I'm hearing.



Hilbert

The format works if you're already there. If you're already at the corner with the tap, the code is a very clever way of saying which corner. But somebody has to be at the corner. And round here, that somebody is a man with a clipboard who came up the drive, or a woman at the ambulance side who's been doing that road since before the code existed.



Corn

The one thing I'm taking from that is that the code is a fifth of the answer.



Hilbert

It's a fifth. And it's a good fifth. I'd keep it. I'd just want the other four fifths written down somewhere, and the only place they're written down is in the woman's head at the ambulance side. That's the part I'd worry about, if I were you. Not whether the field has a number. Whether the woman is on shift.



Corn

Now here's where I'd land it. The thing that's lasted from this conversation for me is Hilbert's woman at the ambulance side, because it says where the whole system actually lives.



Herman

It lives in the dispatcher, not the code.



Corn

Which means the limit on OLC in an emergency isn't the format at all, it's the training. And training is a budget line, and nobody funds a budget line for the one caller in a thousand.



Herman

Which is why the code's best case is the places where there's no one at the other end to train. The Navajo Nation project worked because everyone there learned it at once, together, from the same four years of fieldwork. That's not a software rollout. That's a community.



Corn

Every place that doesn't have that gets the broken gate instead.



Herman

That's not a failure of the code. The broken gate still worked.



Corn

Which is the strange ending. The system is technically sound and operationally losing, and the thing it's losing to is a woman who knows the road, and I can't bring myself to call that a defeat.



Herman

The open question for me is whether that ever flips. If a phone surfaces the code on the lock screen at the moment of the call, and a CAD vendor ships the library call, then the training question answers itself, because the dispatcher just sees a resolved point on a map and never has to recognise the format at all.



Corn

Then what's left of the vendor dependency.



Herman

That's the part nobody's solved. The shortened code resolves through Google. If dispatch adopts this, dispatch rents its addressing from Google, or it adopts the full code and eats the reading-out-loud problem. That's the fork in the road and I don't know which way it goes.



Corn

I'd take the full code. Worse for the user, better for everybody downstream.



Herman

I'd have guessed you'd say that. You always take the repairable option.



Corn

It's the one that still works when the API is gone.



Herman

Thank you, as ever, to our producer Hilbert Flumingtop, who has been at the desk for the entire hour and who has now made me want to check the screws in my own cupboard.



Corn

That was this one. That was My Weird Prompts. If you want to send us a topic, the way to do it is to send us your own prompt on Telegram at t dot me slash MWP listener bot. We read everything that comes in and we've built whole episodes out of single sentences people sent at two in the morning.



Herman

If you enjoy the show, a rating or a review on whatever platform you're listening on does help other people find it.



Corn

We'll be back soon.



Herman

See you tomorrow.

SOURCES

What the research for this episode read before the script was written. Primary sources first.

1. **google/open-location-code GitHub repo (README, FAQ.txt, CHANGELOG, LICENSE, External_Implementations.md) [primary]**
   https://github.com/google/open-location-code

2. **Google Open Source Blog, Open Location Code: Addresses for everything, everywhere, 2015-04-30 [primary]**
   https://opensource.googleblog.com/2015/04/open-location-code-addresses-for.html

3. **Google Plus Codes site [primary]**
   https://maps.google.com/pluscodes/

4. **Wikipedia, Open Location Code (accessed 2026-10-13)**
   https://en.wikipedia.org/wiki/Open_Location_Code

5. **Salt Lake Tribune, Rural Utah Project completes work providing Google Plus Codes on Navajo Nation, 2024-01-09**
https://www.sltrib.com/news/2024/01/09/how-technology-deployed-somalia/

6. **Google blog, How Plus Codes helped create new home addresses in India, 2023-10-09**
https://blog.google/company-news/inside-google/around-the-globe/google-asia/how-plus-codes-helped-create-new-home-addresses-in-india/

7. **Google blog, How we used Plus Codes to create over 14,000 addresses in a Brazilian favela, 2023-05-15**
https://blog.google/products-and-platforms/products/maps/google-plus-codes-brazil-addresses/

8. **QA Locate, Mark Kegel, What's Wrong with Open Location Code? (2019; via Wayback 2022-12-21)**
https://web.archive.org/web/20221221020357/https://www.qalocate.com/whats-wrong-with-open-location-code/

9. **PIB (India Ministry of Communications), Launch of 'Know Your DIGIPIN' and 'Know Your PIN Code' Web Portals, 2025-05-27**
https://www.pib.gov.in/PressReleasePage.aspx?PRID=2131707

10. **PLOS ONE, A critical analysis of the What3Words geocoding algorithm, 2023**
https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0292491&type=printable

11. **what3words, what3words Integrates with RapidSOS, 2021-03-31**
https://what3words.com/news/emergency/what3words-integrates-with-rapidsos

12. **City of Hayward, Hayward Police and Fire Departments adopt What3Words, 2024-07-10**
https://www.hayward-ca.gov/discover/news/jul24/hayward-police-and-fire-departments-adopt-what3words-application-locating-tool

13. **arXiv:2210.07666v1, Téglásy & Katsikas, A Location-Based Global Authorization Method for Underwater Security, 2022-10-14**
https://arxiv.org/abs/2210.07666v1