

CRYPTOCURRENCIES,  
SELF-DRIVING CARS,  
&  
*MURDER!*

A CRIME NOVELLA

BY GENE HILL

**Cryptocurrencies,  
Self-driving Cars,  
&  
Murder!**

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Federico Ramirez stumbled past the *Polica de Acapulco* sign and into the building. He looked like he belonged in their drunk tank. He probably did. But he was supposed to be the guy who put drunks in the tank.

It was 8:15 in the morning and already getting warm. Federico's head hurt from last night's tequila. His stomach felt funny but empty. *We should never have started celebrating Cinco de Mayo, another import from the US that we didn't need.*

The dispatcher giggled and looked away as he walked by the radio room. *OMG, did I leave my mic on all night again?* He ducked his head and said, "Mic off."

As he walked up to the vending machine, it scanned his face and registered his identity. When he pushed the breakfast burrito button, the machine scanned the ID chip embedded in his hand and displayed, "Federico, your credit account balance is zero, sorry." *That last tequila shot cost me breakfast. Now I'm hungry, and I don't get paid until tonight.*

He was considering his paltry life when a voice behind him said, "As the street cops say, there is no crime. Move on. There's nothing to see here."

Turning, he recognized Juan and said, "You're wrong, the food here *is* criminal."

Juan responded, "Yesterday's donuts are still on my desk if you'd prefer."

*Gracious, Juan,* Federico thought as he poured black coffee into this mug and hurried to Juan's desk. He took a huge bite of a cake donut and tried to chew it with little success. His throat involuntarily tried to swallow before he was ready. The bite got stuck, wouldn't go down, wouldn't come up. Panic started to set in. He sipped some coffee to loosen things up. He got part of it down, had more coffee and swallowed. He slumped into Juan's chair. *Breaking News: Federico Ramirez, 15 year veteran of Polica de Acapulco, choked to death on a stale donut this morning.*

*Health officials warn that it is very important to hydrate after drinking alcohol.* Federico thought, *I almost became a public service announcement?*

“Can I use your desk today? Are we trading?” Juan’s voice broke into his eulogy.

Federico grabbed two more donuts, glazed this time and walked to his desk and sat down. He traded the radio unit and headset for the fresh ones in the charger. He said, “Mic on. Federico Ramirez reporting for duty.” The computer checked his voice print. A beautiful blonde appeared and said “*Hola, Ocho e media, Seis de Mayo.*” Shifting to the universal English, “I am ready for a good day’s work. Are you?” This was the one female interest in his life since Maria left, and he didn’t mind that she had said the same thing to 100 other men this very morning so far.

“Computer, load missing persons, open cases.” Twenty cases appeared on the screen. “Open Ellie Gonzales.” He scanned the screen.

Submitted by text. Ellie Gonzales didn’t report to work today. Didn’t respond to text or phone.

Worried! Supervisor Hernandez.

“Computer, search hospital records for Ellie Gonzales.”

“Ellie Gonzales. DOA 11:30 p.m. Drug overdose.”

“Was a contact notified?”

“Eduardo Gonzales. Not notified. DOA 12:00 a.m. Drug overdose.”

“Open Eduardo Gonzales. Check contact in case of emergency.”

“Ellie Gonzales.”

“Check birth records for parents. Check death records.”

“All deceased.”

“Check employment for both”

“Ellie Gonzales, State Unemployment Office. Eduardo Gonzales. Currently unemployed. Last employment. Morita Construction. December 2024.”

“Phone Hernandez.”

“*Hola*, Angel Hernandez.”

“Yes, this is Federico Ramirez of Polica de Acapulco.”

There was a pause at the other end of the phone.

“I’m sorry that I have to inform you,” He paused to let it sink in. “That Ellie Gonzales and her husband Jose both died last night. Had you been informed of this?”

“No.”

“Do you know any of their family?”

“No. Let me check their records..... No, they just show each other.”

“Any children?”

“No.”

“Thank you. Please notify your records. And ask her friends if they know anyone to notify. I’m Federico Ramirez. Just have them call me at Polica de Acapulco. *Gracias. Adios.*”

“Computer, hang up. Then bring up their last year’s Tax Returns.” The display blinked.

“Show charitable deductions.” The screen showed.

*La Madre de Sagrado Corrizone.*

“Computer, phone their number.”

“*Hola*, La Madre de Sagrado Corrizone.”

“This is Federico Ramirez of Polica de Acapulco.”

“Yes?”

“Do you know Ellie and Jose Gonzales?”

“Yes, I do. Is something wrong?”

“Unfortunately,” Pause. “Both died last night.”

“*Aye!*”

“Did they have any relatives or close friends?”

“As far as I know there was only an Uncle. Let me look it up. Pause. Jorge Gonzales in Montevideo.”

“*Gracias. Adios.*”

“Computer: Find phone number of Jorge Gonzales in Montevideo.”

“Located.”

“Phone.”

“This is Jorge Gonzales. I cannot come to the phone right now. Please leave a message, and I will return your call as soon as I can.”

“This is Federico Ramirez of Polica de Acapulco. Ellie and Eduardo Gonzales were admitted to the hospital. It is important that I talk with you. Please call between the hours of 8 a.m. and 5 p.m. Gracias. Adios.”

And so the day went. The routine was comforting, but Federico was anxious to get to the hard ones, something challenging. The Police were one of the few agencies with access to a broad range of databases; most of the routine missing person’s cases fell to them. He worked through lunch as he usually did.

Finally, by late afternoon the easy ones were out of the way. *Now to the challenging ones.*

“Display the rest of the cases.” These were the cases where the missing person did not have an ID chip. They were poor, aliens, criminals, the interesting ones that took more brain power. This was the fun part for him, but no one else cared.

“Federico!” It was his shift officer. “There is an auto accident at *Avenida de Acapulco y Calle Ocho*. All our investigators are on gang murders. Get over there!”

Federico started to say, “I shouldn’t have to do street duty,” but he knew how it went and he always lost.

He walked outside, grabbed his scooter and headed for the intersection. He made it in eight minutes. *I wonder why people still used automobiles in this crowded city.*

There was a late model Ford that had the front end severely crumpled. A middle-aged lady leaned against her car and mumbled to herself. A bright red Mercedes had similar damage. There was no other driver.

“I’m Federico Ramirez of Polica de Acapulco. What is your name?”

“It came right through the red light and hit me. The self-driving system must have malfunctioned.”

“What is your name?”

“Look at my car! I’ve never had an accident before.”

“What’s your name and address?”

“Maria Rodriguez. 11900 *Avenida de las Pulgas*.”

Federico taped a lengthy statement, then said, “Computer: Assign the next auto accident case number.”

“AA050521-24351”

“Attach statement.”

“Please wait here a moment,” Federico said to the woman and then walked around the autos inspecting the damage. He took the keys of the Mercedes to the back of the car. As he lifted the trunk, he saw a hand. Holding the lid, so it only opened a few inches he felt for a pulse, nothing. In spite of his urge to open it up and investigate he closed the trunk realizing the stir this would cause.

He slapped signs saying *Polica!* across the windows and a seal across the doors and trunk. “Federico Rameriz to control. I need a tow at the corner Avenida de Acapulco y Calle Ocho.”

While he waited, he videoed the scene, filed the report, and asked for witnesses. As always there were none.

When the tow arrived, he instructed the driver to return to the Police Forensic Lab. He led the way on his scooter as if he were escorting diplomats.

At the lab he got a team started on the interior of the suspect auto. He snapped on latex gloves. He could finally open the trunk. There was one body of a female, approximately 30, red hair, clothed.

“Let’s get a gurney over here. And video everything first so we can move the body.” It seemed to take an hour.

“Computer, assign the next death case number.”

“D050521-203.”

“Append my voice. The body of a female age approximately 30 discovered in the trunk of an automobile involved in an auto accident. Associate with AA050521-24351.”

Once in the morgue, the doctor scanned her ID chip and said, “Maria Vasquez, age 35. Good health, no serious medical problems. Good body mass index, no heart issues. Looks to be very fit. She was gorgeous; someone will be very sad.”

“Any guesses what killed her?” asked Federico.

“I don’t guess. There is white stuff here on her nose and upper lip. I’ll do a toxicology screen of her blood first.”

“Where are the personal effects?”

“On the table over there. A small purse, she was probably out for the evening. Usual stuff, but no cell phone. Look in the paper bag.”

Inside Federico found a rubbery mask which he carried over to the body. “Perfect match, but it looks better than she does now,” he exclaimed. “Why go to a party disguised as yourself?” Looking in the bag again, he removed a rubber glove, just thicker than his latex glove. He could feel a small lump in the spot between the thumb and first finger. “What’s this? It’s right where an ID chip’s implanted.” Federico walked over to the scan machine and waved it at the sensors with his left hand. “Same woman, same data. Now, this is interesting! It’s a cloned ID chip. I’ll bet the fingerprints match too. Would you check that out?”

“Sure.”

“Cloned ID chip, fingerprint glove and an excellent mask of her. This is pretty sophisticated stuff,” said Federico. *I wonder what’s going on here?* “I’m going back to my desk to check some things. Let me know what you find.”

“Sure.”

Federico went to the break room for some brain stimulant and sloshed coffee in his mug as he concentrated

on the case. Walking back to his desk he thought, *Dead professional woman, probably well off, single, mask that is a dead ringer for her. He laughed, dead ringer, that's funny. Cloned ID chip. How would someone use all this?* Setting down, he called his friend in the financial crimes division.

“Sergio Melinda.”

“Hi Sergio. This is Federico. I want to pick your brain on identity theft.”

“Better switch to video so I can verify it's you.”

“That's very funny, Sergio. You must be feeling good today,” said the detective. Then he switched to video.

“Federico, you look awful. Too much partying? You should try my Paleo diet. I feel great.”

“Oh sure, carrots. Here is what I need. If I were going to steal someone's identity, how would I use a cloned ID chip and face mask?”

“Remember when they went to pay-by-face to replace usernames and passwords?”

“I remember there were hot sales of Bezos Halloween masks. Lots of people shaved their heads. Then they found they didn't fool the 3D scans on the cell phones. How did we get from pesos in our pockets to a chip in our hands and credits that jump from computer to computer?”

“Got time for a quick history lesson?”

“Sure.”

“Centuries ago if you traveled from say Venice to Cairo to trade silk for gold, what did you do with the gold on the way back, so you didn't get robbed? If you gave 1000 gold coins to the Medici Bank of Cairo, they would give you a note that entitled you to get back 1000 gold coins in Venice.”

“You would really have to trust the Medicis.”

“When the robbers stopped you on your trip, you had no gold, just paper they couldn't read.”

“When you got to Venice you might leave most of the gold with Medici. They would write down credit 1000 gold coins. If you took ten out, they wrote debit 10, and then 990 in the ledger.”

“And that’s how we got banks and minus ten coins for the account fee,” mumbled Federico.

“Fast forward to the electronic age; banks now have copies of the ledgers in say every branch. If you go to another state, they can access your account and make a transaction that goes into the ledger. It’s all transmitted back and forth and to other banks encrypted.”

“What is encryption?”

“It’s like a secret code on steroids. Anyone looking at the transmission won’t be able to read it.”

“So anyone hacking the transmission can’t read it like the robbers couldn’t read the paper. Got it. So what’s next?”

“Bitcoin. This smart hacker, not really sure which one, sets up his own system of ledgers and software.

“Actual coins?”

“Not really, they are virtual coins for trade with others. Say you bought 1000 pesos worth of Bitcoin, you could buy and sell stuff with other Bitcoin accounts without banks or the government looking over your shoulders.”

“And the ledgers?”

“The clever part was the transmissions were all encrypted, and stored in thousands of ledgers for all to see, impossible to hack them all. No names attached, just pseudonyms, so criminals jumped on it because the police couldn’t *follow the money*.”

“How did the International Monetary Fund get involved?”

“They saw the chance for a global cryptocurrency with backing and stability Bitcoin didn’t offer. You see the value of Bitcoin was all over the map depending on who was buying and selling.”

“So now we have credits, not pesos.”

“When the IMF saw pay-by-face might be fooled they went to a layered ID system. That’s when they began implanting Radio Frequency ID chips. Facial scan plus ID chip for serious verification. So far that hasn’t been broken.”

“Has anyone broken pay-by-face?”

“Sure anything can be hacked. I saw a paper presented at a conference. Since the smartphone does the 3D scan and computation for eigenvectors defining the face, one way is to hack a smartphone to transmit that any face was a match or substitute the stored eigenvectors on the upload.”

“What’s an eigenvector?”

“You don’t want to know. Just imagine a 3D line drawing of a face.”

“So if crooks can get a person’s ugh...vectors, they can scan their face but upload the other person’s ugh, data?”

“Exactly, that’s one way. Anyway, based on the paper, they require only the person’s registered phone can verify identity. As far as I know, no one has ever beaten it after that. It’s a cat and mouse game. Bad guys look for holes, and the good guys patch the holes.”

“How about ID chips? Can they be cloned?”

“Easy, scan their ID chip when they aren’t aware. Steal a programming machine and make a copy. But, once they use the cloned chip, the latest transaction is stored on it. Then the original chip won’t have the right last transaction when the real ID chip is used it is flagged, and immediately the bank shuts down both chips.”

“If it’s so foolproof, why do pay-by-face?”

“Some people object to being implanted even after the Pope got chipped. And it gives us police guys a facial database of almost everyone.”

“So if someone does have a cloned ID chip how could they use it?”

“Interesting, I’ve never actually seen this before. But if they plan to use the ID chip, they must make sure the owner can’t use theirs.”

“Kidnap or killing them works. So why not just kill the person and cut out their ID chip?”

“That works, and it’s easier. But there has to be a lot of money in it to risk life in prison for murder.”

So what kind of money will these identifications allow?” asked Federico.

“An ID chip scan or face scan can be used to authorize up to 1000 credits. A face scan and an ID chip together as verification you could buy or sell almost anything.”

“Wow.”

“So why do you want to know all this? What case are you on?”

“We just found a dead body in a trunk. And there was a cloned chip in a rubber glove and a mask that was a perfect match for the dead woman,” said Federico.

“They probably wouldn’t use the mask for a verification scan if they had some eigenvector substitution scheme.”

“Would it fool security videos?”

“If it was good enough, it could even fool people. Actors use it all the time.”

“I expect I’ll be back. Thanks, Sergio.”

“I better not find out you quit your job and started learning to program.”

“No chance.” And Federico hung up. Had some cold coffee and sat thinking for a while. Abruptly he got up and walked back to the morgue.

“Hey Doc, what killed her?”

“A mix of things. First, that stuff on her nose was cocaine, then enough heroin in her blood to kill a horse.”

“So she might have been a novice, or she overdosed to commit suicide.”

“Yup.”

“Strange. Anything else?”

“That’s it. Want some dinner? It’s 10:30.” The doctor often ate alone and was eager for a body that would talk back.

Federico wanted to, but said, “No thanks, I need to get home. Long day,” Federico was aware of his credit balance.

He arrived at 2025 *Avenida Ninos Heroes* in 15 minutes. He liked to live at an address that was also the current year. He often needed clues to where he lived.

“It’s me; I’m home.” Garson, the digital home assistant, scanned his voice, and the apartment door opened. The single light in the ceiling showed a stark, almost empty room, a plain sofa, an end table and plain lamp, desk, dining room table, and chairs. He rolled his scooter in, plugged it in and said, “Garson, phone the cable company:”

“Yes master.”

“Hello, this is Cable Uno. How can I help you?”

“This is Federico Rameriz. Would you turn on my apartment experience?”

“One moment. Our data shows that you have not made this month’s payment.”

“I always pay. I worked late and couldn’t get my ID chip credited before you closed,” said Federico.

“Okay. Your history says you always pay. We will extend you for five days, but that will cost you one credit. You could have your bill automatically paid on the first of each month.”

“I know too much about computer crime. I’ll pay by ID chip tomorrow.”

“This month we are offering a ten-day free trial on the next level visual experience, for you that would be Rio.”

His room walls turned into a beach with girls in bikinis sunbathing. The blonde from his work computer walked by and waved. The furniture was now rattan with palms on the lampshade. “And if you sign-up today you can have a

free celebrity experience.” Suddenly his apartment was filled with movie stars and beautiful people.

“I don’t want a free trial on something I can’t afford, just my basic apartment.”

“Si, si. Goodnight Senor Rameriz.”

His apartment living room turned into a tasteful, messy, Edwardian apartment. In fact, it was a replica of Sherlock Holmes’ apartment on Baker Street.

“Good!” He walked into the kitchen and selected the only plate in the refrigerator. Into the microwave it went. Garson scanned the contents, weighed them, set the time, and the microwave started. Federico poured a beer. “Garson, television, news.”

“Moving to local news, the body of Esteban Herrera, local playboy, was recovered off Playa del Mar. Ricardo Seville, Acapulco Coroner, said, ‘Mr. Herrera apparently fell overboard from a cruise ship. His ID chip, facial scan, and fingerprints confirmed his identification.’”

A beep distracted Federico. He retrieved the plate of beans and tortillas. “Garson, television off.” He walked to the single bedroom. Setting on the bed, he balanced the plate and had a bite with one hand, then a drink of beer from the other. “Garson, Messages.” His mother’s face appeared on the wall scolding him for never calling. There were several advertisements, notice of bills, nothing else. He finished his meal. He sat the empty plate with the can on the nightstand. Lights out!”

“Yes, master.”

This was Federico’s life. He saw both the illusion and the dreary reality of life.