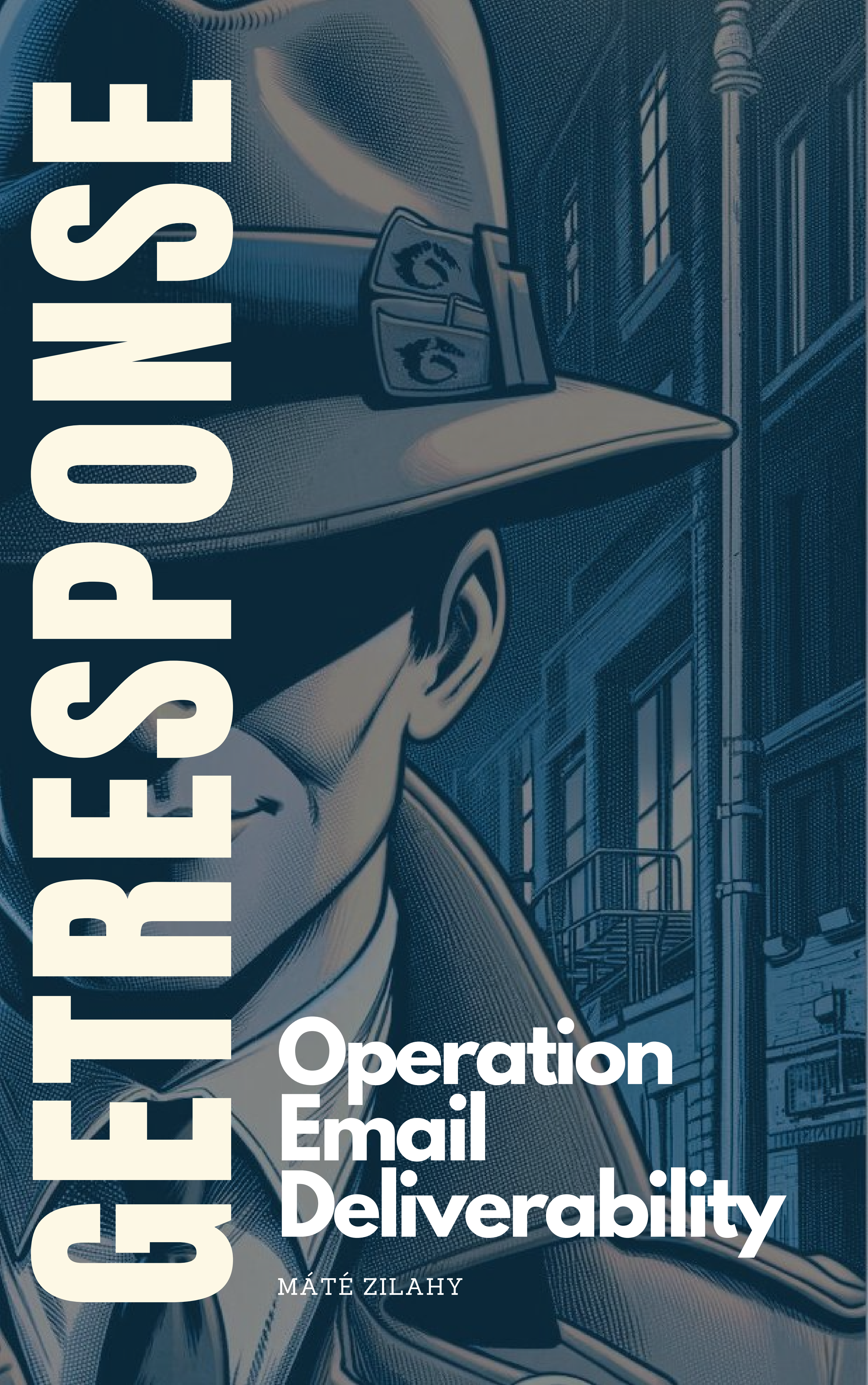




OPERATION EMAIL DELIVERABILITY

Operation
Email
Deliverability

MÁTÉ ZILAHY



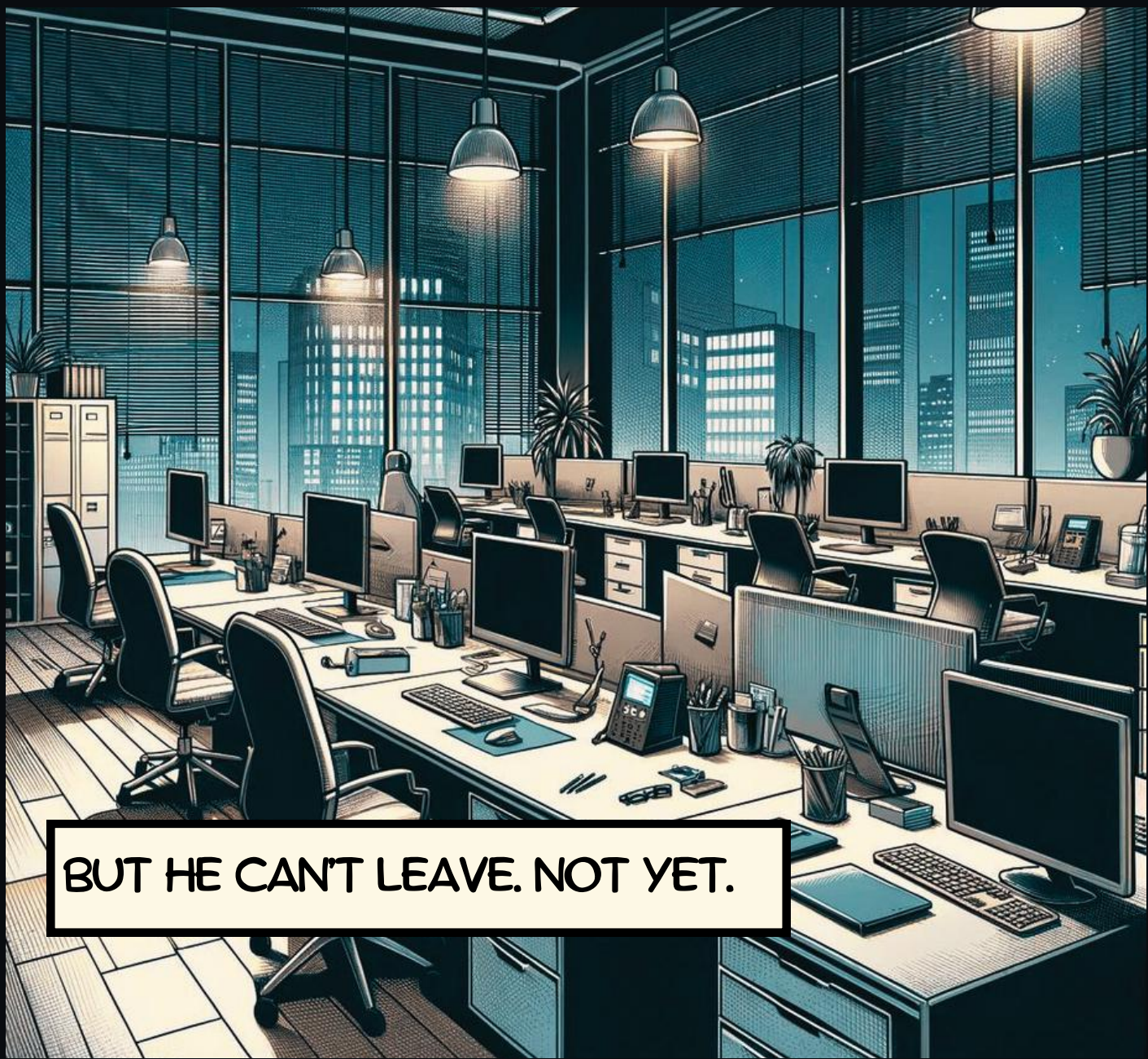
JACK WOULD RATHER BE AT HOME



IT'S WAY PAST HIS OFFICE HOURS...



... AND MOST OF HIS COLLEAGUES HAVE ALREADY GONE HOME FOR THE DAY.



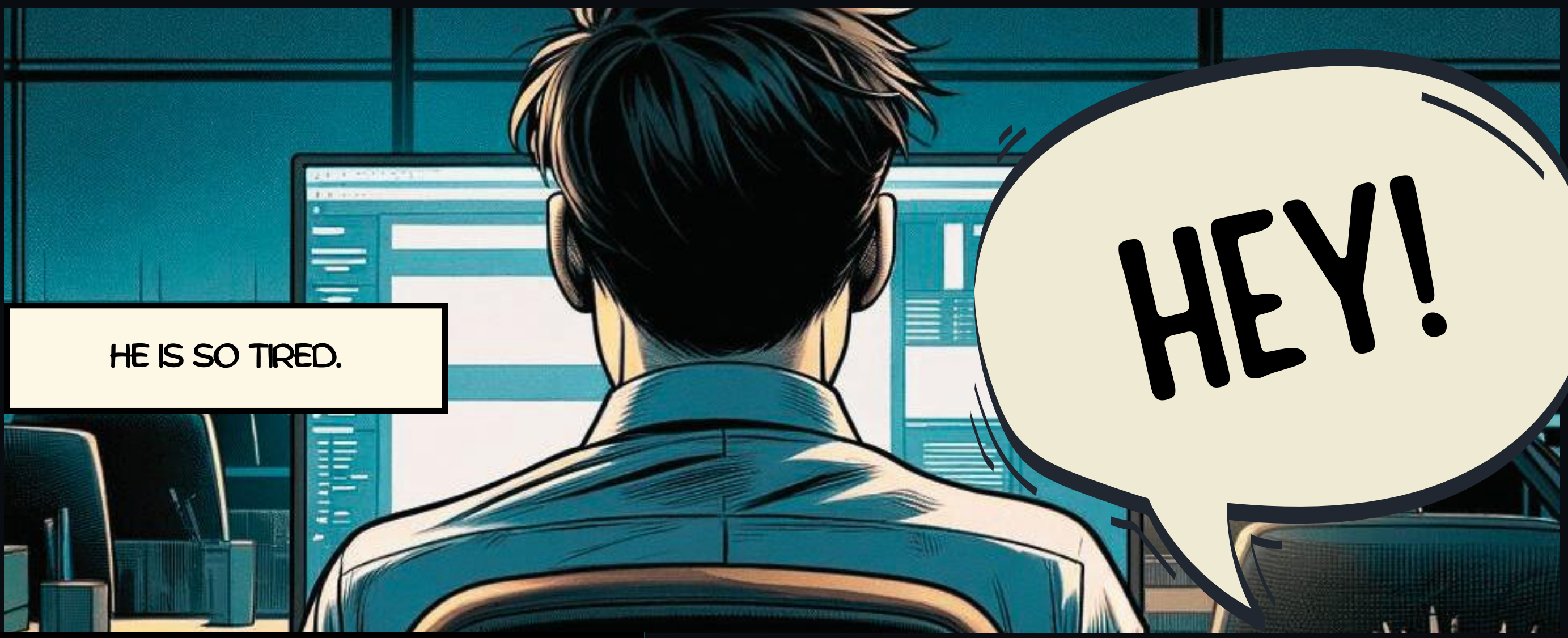
BUT HE CAN'T LEAVE. NOT YET.



NOT UNTIL HE FIGURES OUT WHY HIS LAST FEW EMAIL CAMPAIGNS DIDN'T GENERATE ANY SALES.



IT TOOK A LOT OF WORK TO BE HIRED AS A MARKETING INTERN AT THE STARTUP, AND HE CAN'T ALLOW TO FAIL IN HIS FIRST MONTH.



HE IS SO TIRED.

HEY!



Sorry to interrupt, but you look like you could use some help.

Yeah, I'm good, thanks



Are you sure?



"You've been biting your nails, which is an obvious stress reflex."

"Your bloodshot eyes tell me that you've been staring at the monitor longer than usual in the past few days."



"Your increased heart rate indicates frustration and a higher than usual caffeine intake."

"All this and the fact that you are in the office at such a late hour can only mean one thing – you are desperately trying to solve a problem."



So, let me help.



Where are my manners?!

Do we know each other?



Name's Tanner. I'm the head of the information security department. You must be Jack.



How do you.. OK, nevermind. I guess I could use a hand...

My last three email campaigns performed really poorly. Open rates are at an all time low. And look! Barely any clicks!

"Hmmm. Let me see...."

“Mhmh. Just as I thought.”

“It seems like your sender email is **not properly authenticated**. That’s why your emails are not going through.”

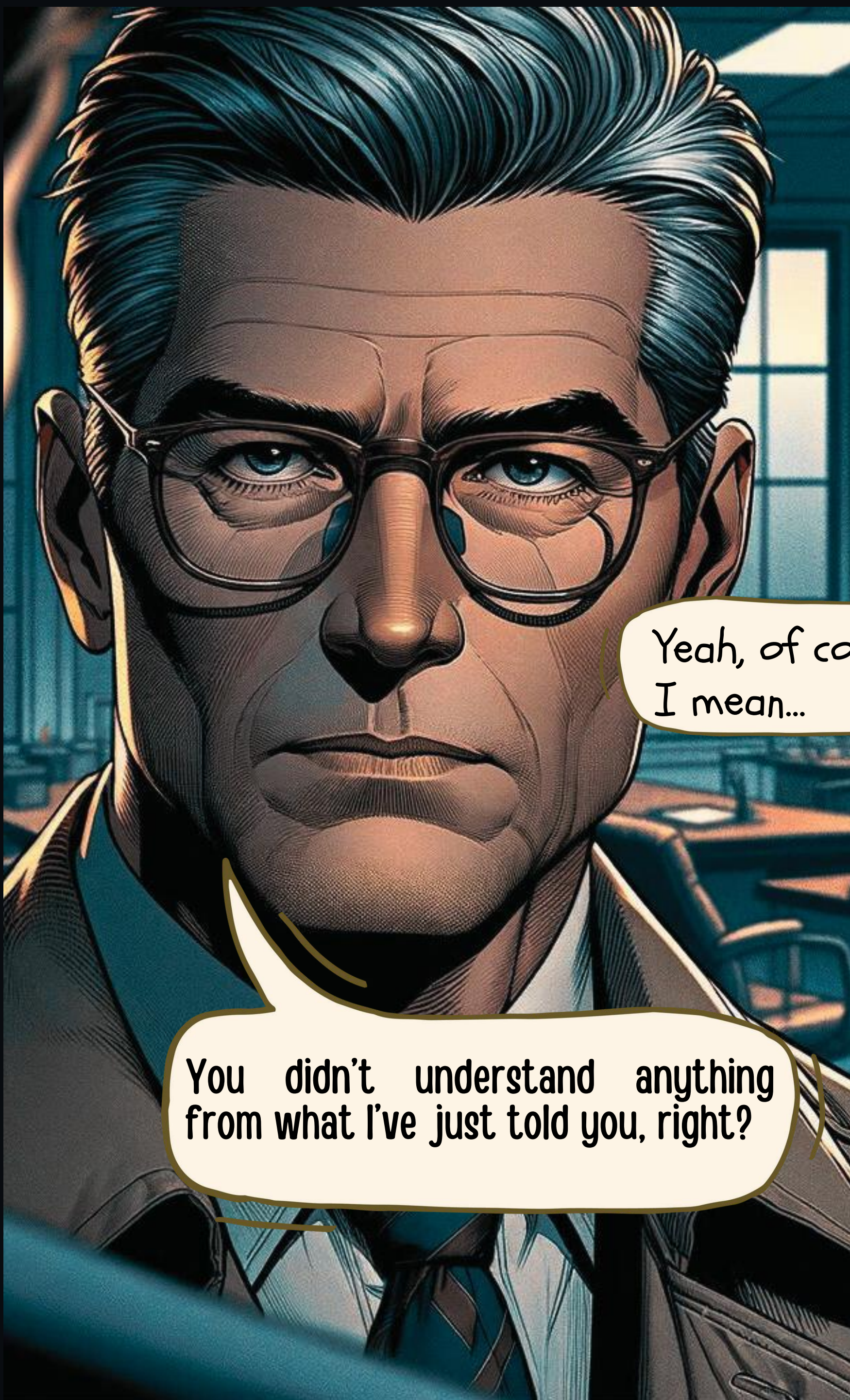
“What- what are you talking about?”

“In February 2024, Gmail and Yahoo! updated their policies.”

“Since then, **bulk senders** – people like you, who send newsletters, automated emails and transactional emails – **must be authenticated with DKIM, SPF, and DMARC**, otherwise their emails will be rejected by inbox providers, like Gmail and Yahoo! – or put in the spam folder right away.”

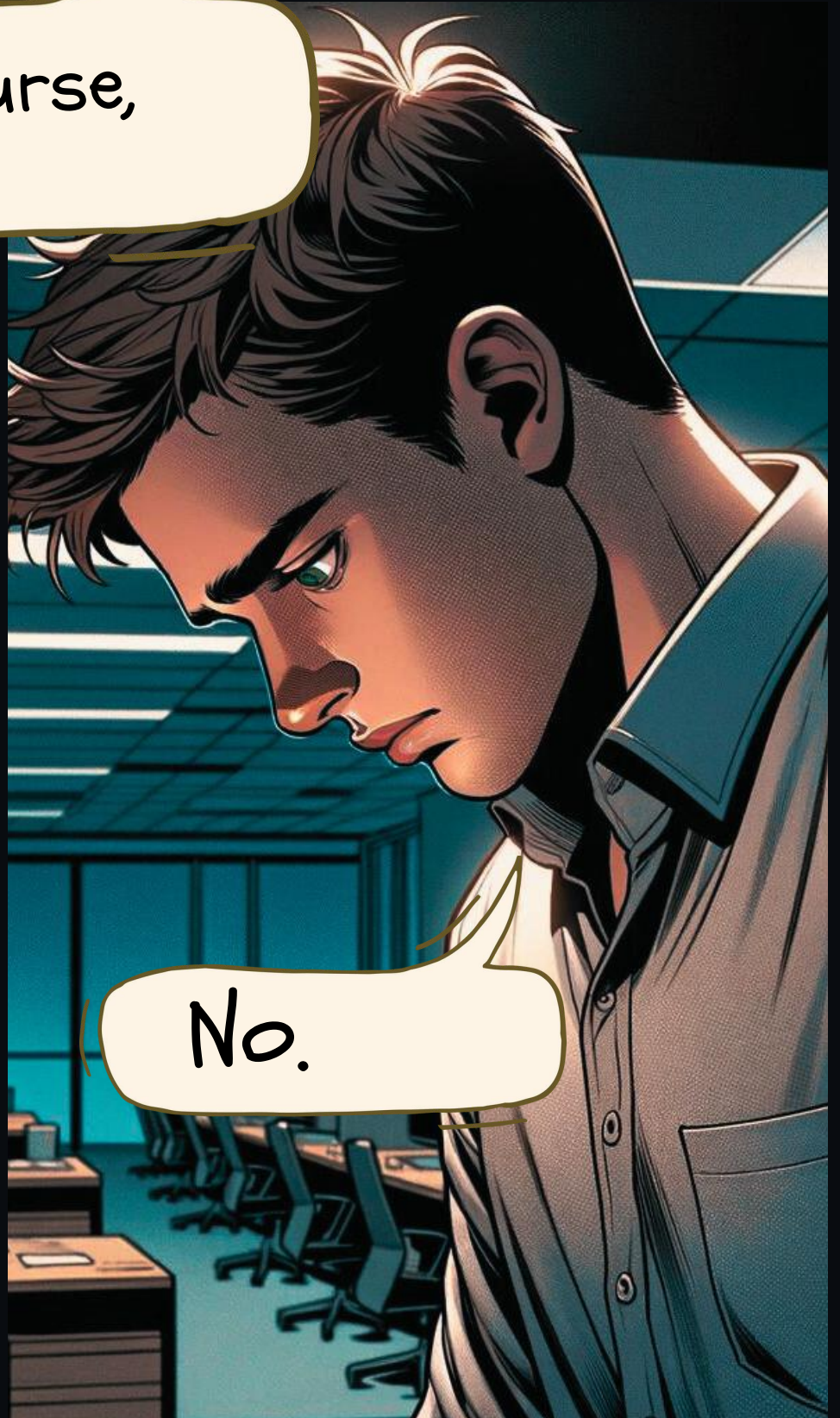
“In addition, you also need to comply with some additional regulations, like adding a **one-click unsubscribe button** to your emails and **keeping your spam score below 0.3%**”

“... DKSP? One click whatnow?”

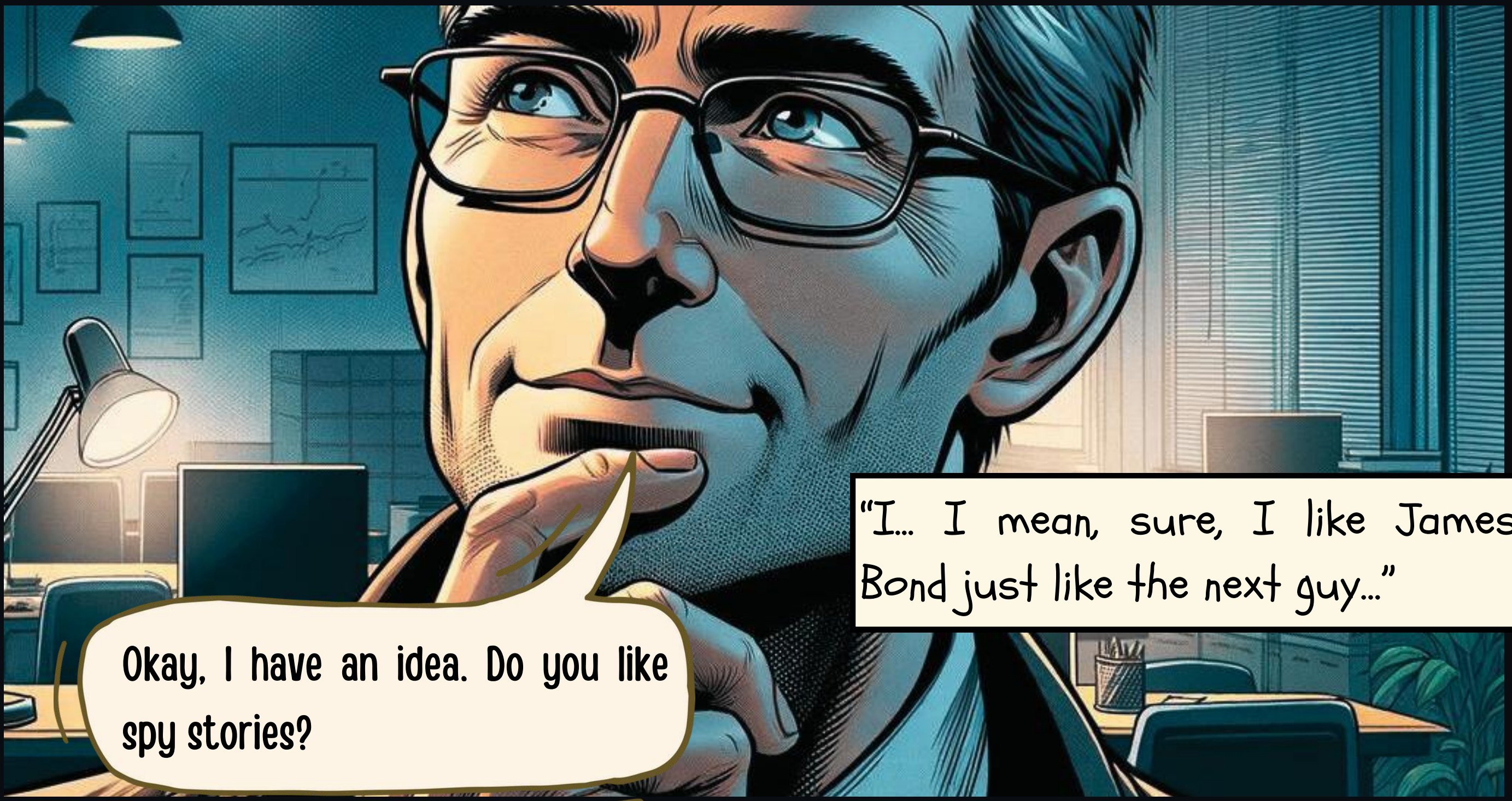


Yeah, of course,
I mean...

You didn't understand anything
from what I've just told you, right?



No.



Okay, I have an idea. Do you like
spy stories?

"I... I mean, sure, I like James
Bond just like the next guy..."

“...but how would that help with my email marketing?”

“Just listen.”



Our story takes place in 1988.



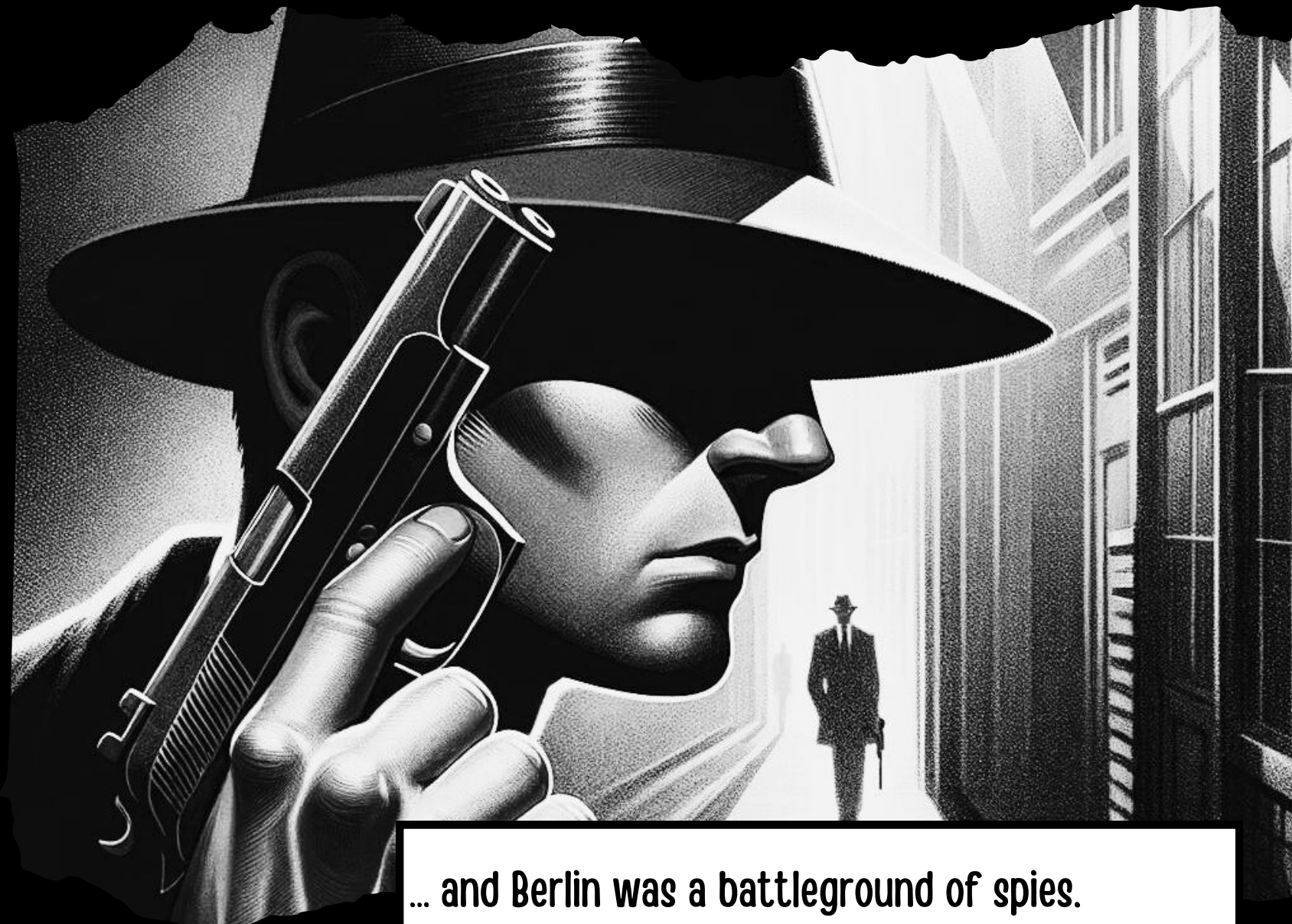
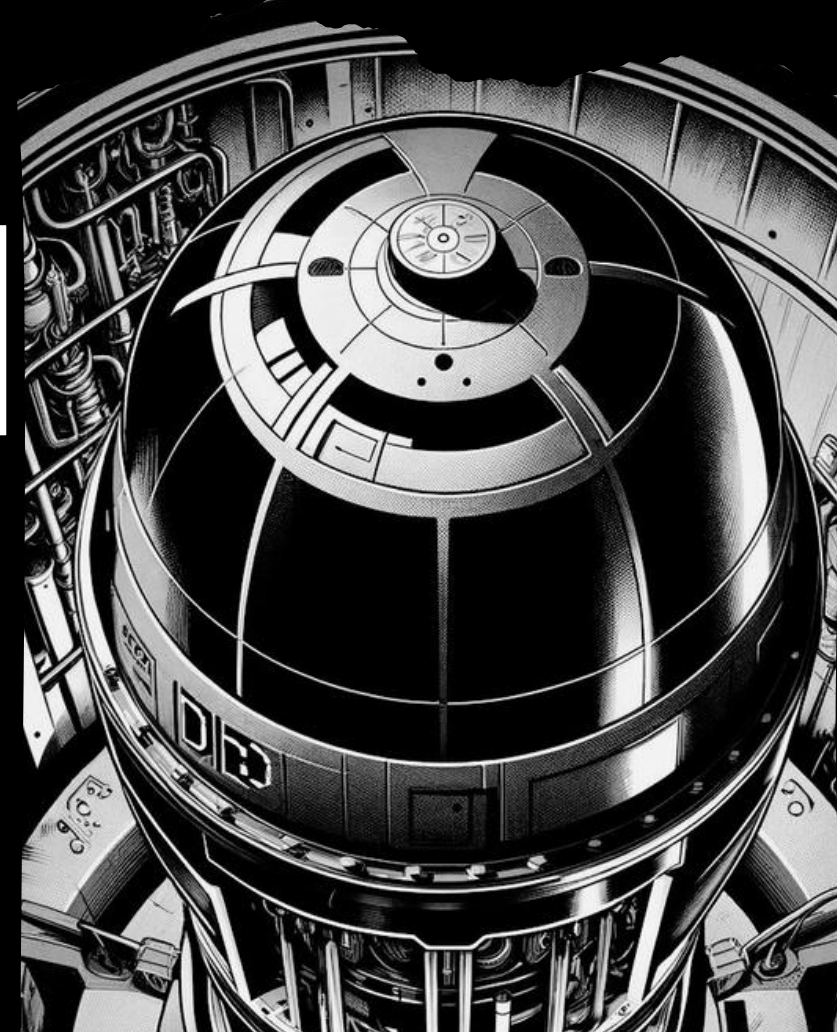
One year before the fall of the Berlin Wall.



Although on the surface, everything looked calm...



...tensions were still high among the world's superpowers..



... and Berlin was a battleground of spies.

An organization – that each year spends a small fortune on ensuring that their name is not known to the public – deployed an agent there.



It was his first mission. His codename was RAVEN.



His objective? Establishing a spy network and tracking down the legendary spymaster, the SHRIKE.



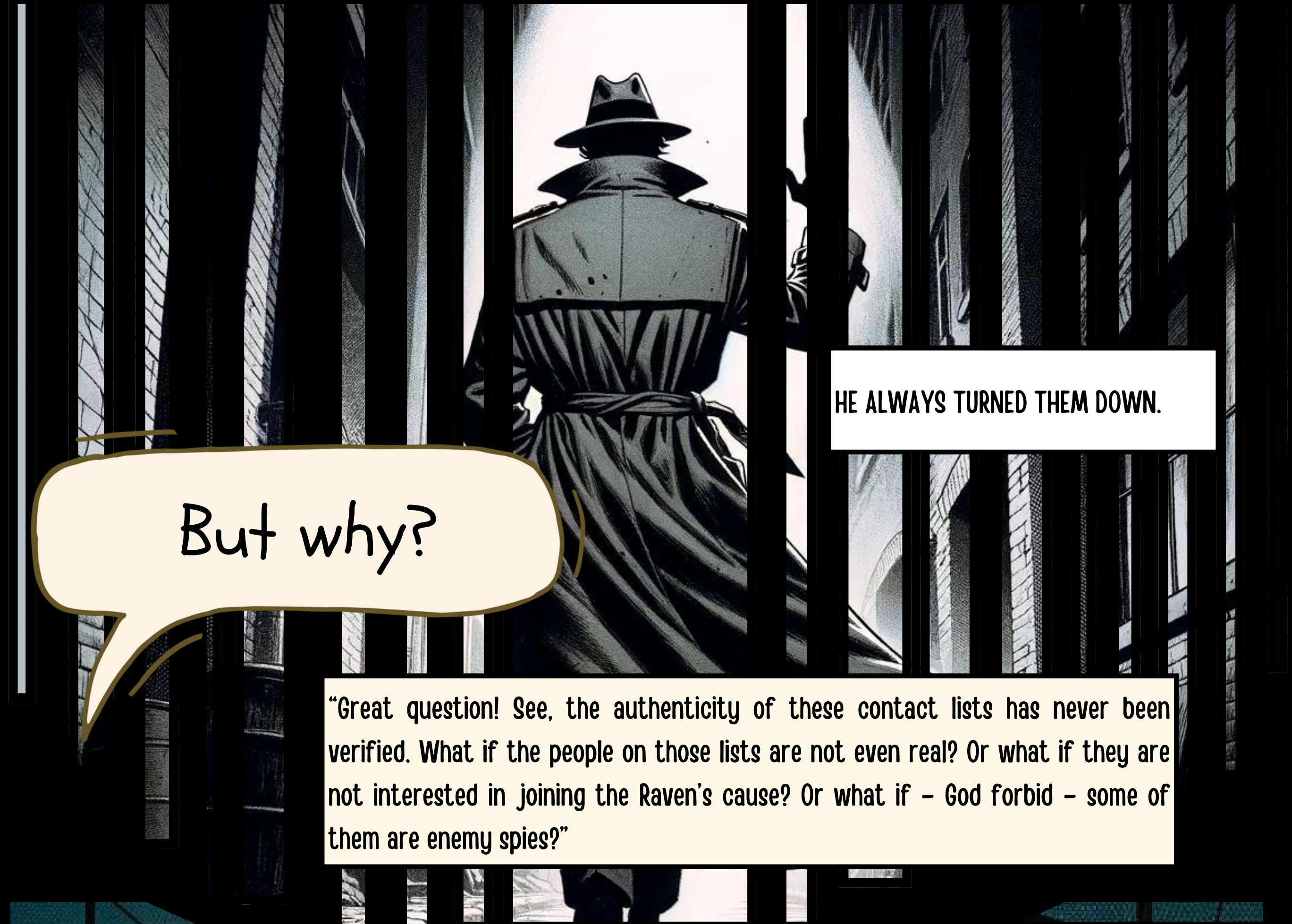
Raven spent months establishing his network, making allies in the underworld...



...and upper society alike.



In the first weeks, Raven's been approached by a few black market dealers, who offered to sell him an established contact list of spies, which would have made his job so much easier.



But why?

HE ALWAYS TURNED THEM DOWN.

“Great question! See, the authenticity of these contact lists has never been verified. What if the people on those lists are not even real? Or what if they are not interested in joining the Raven’s cause? Or what if – God forbid – some of them are enemy spies?”

“And this brings us to our first lesson – **never, ever buy an email list**. It may sound like a good idea at first, but you don’t know the origin of these email addresses.”



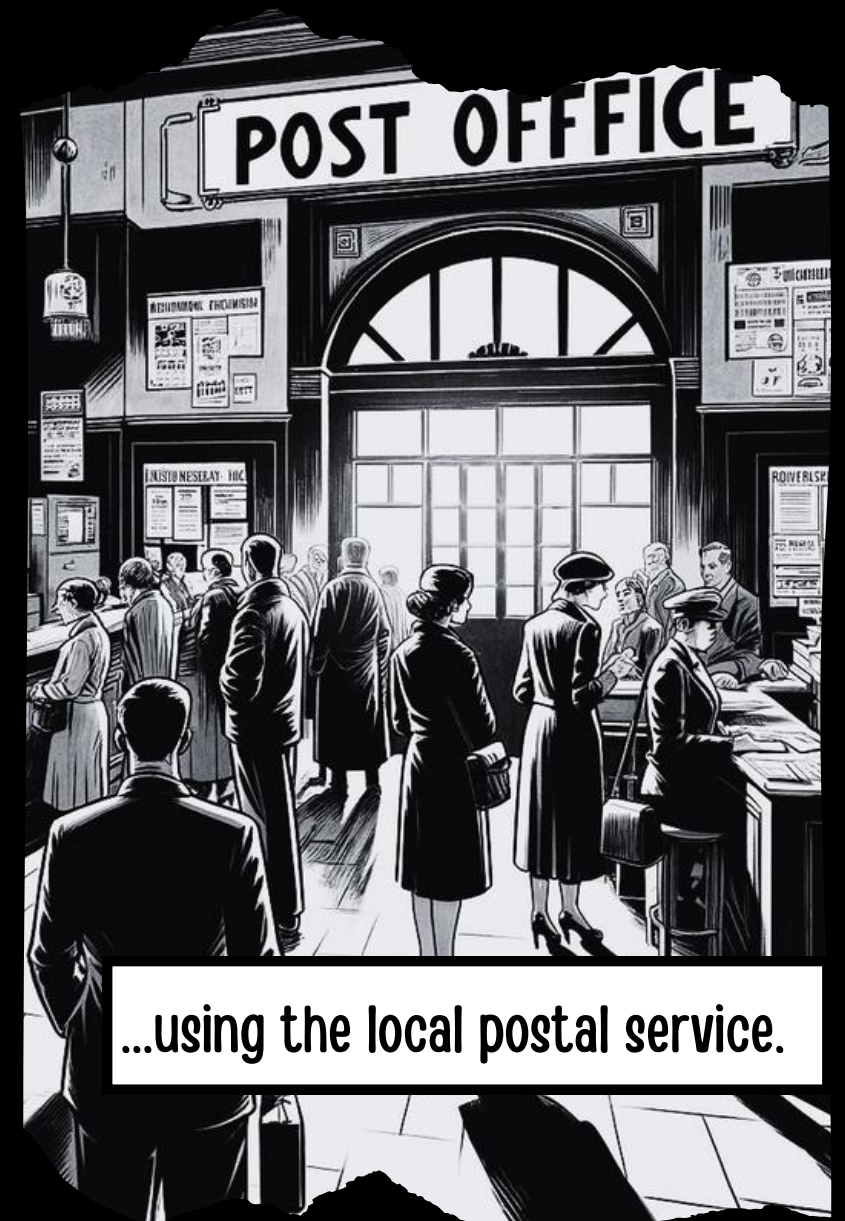
“They are most likely not interested in what you are selling, and would just mark your emails as spam anyway, hurting your sender reputation. **Remember, if your spam rate goes above 0.3%, Gmail and Yahoo! might just flag you as a spammer – for life!**”

“But where was I...”

Raven spent months establishing his network – dozens of men, all on the lookout for the Shrike.



He sent weekly updates to the members...

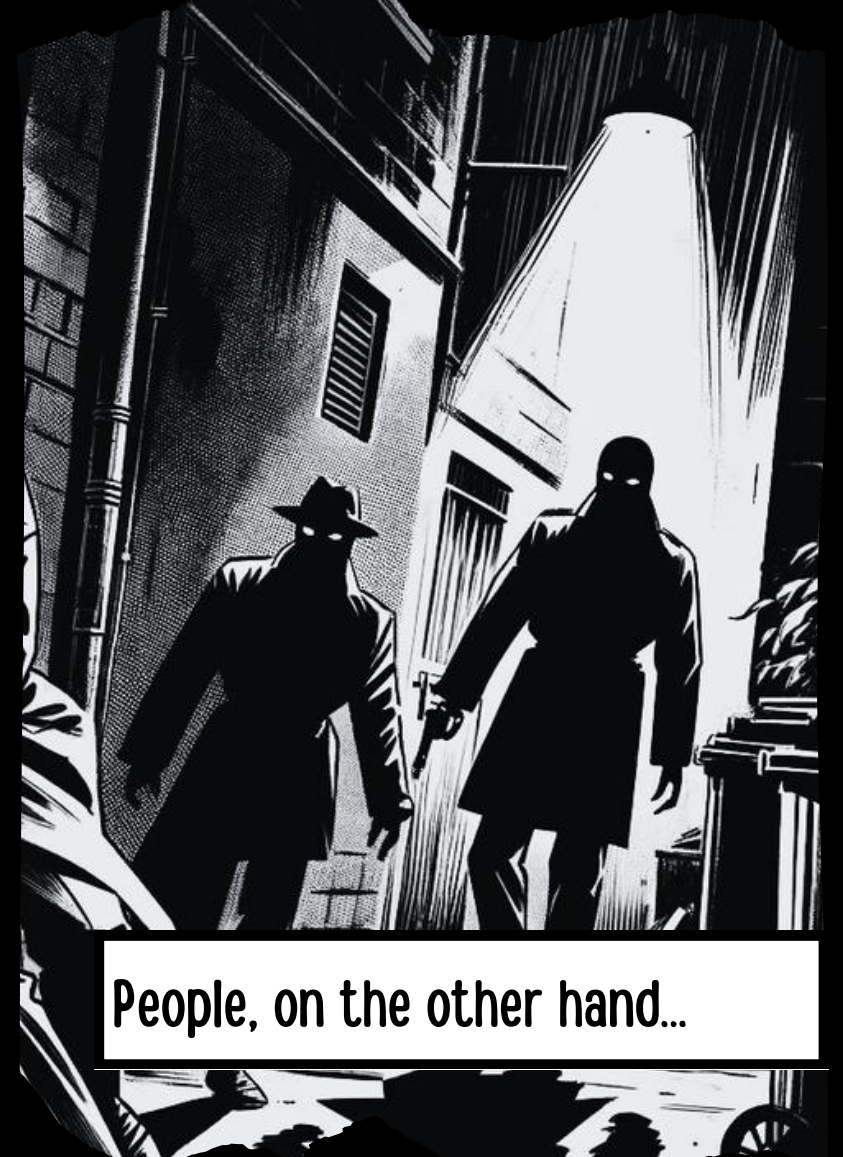


...using the local postal service.

Slow, but effective. Relatively secure.



Systems are hard to compromise.



People, on the other hand...

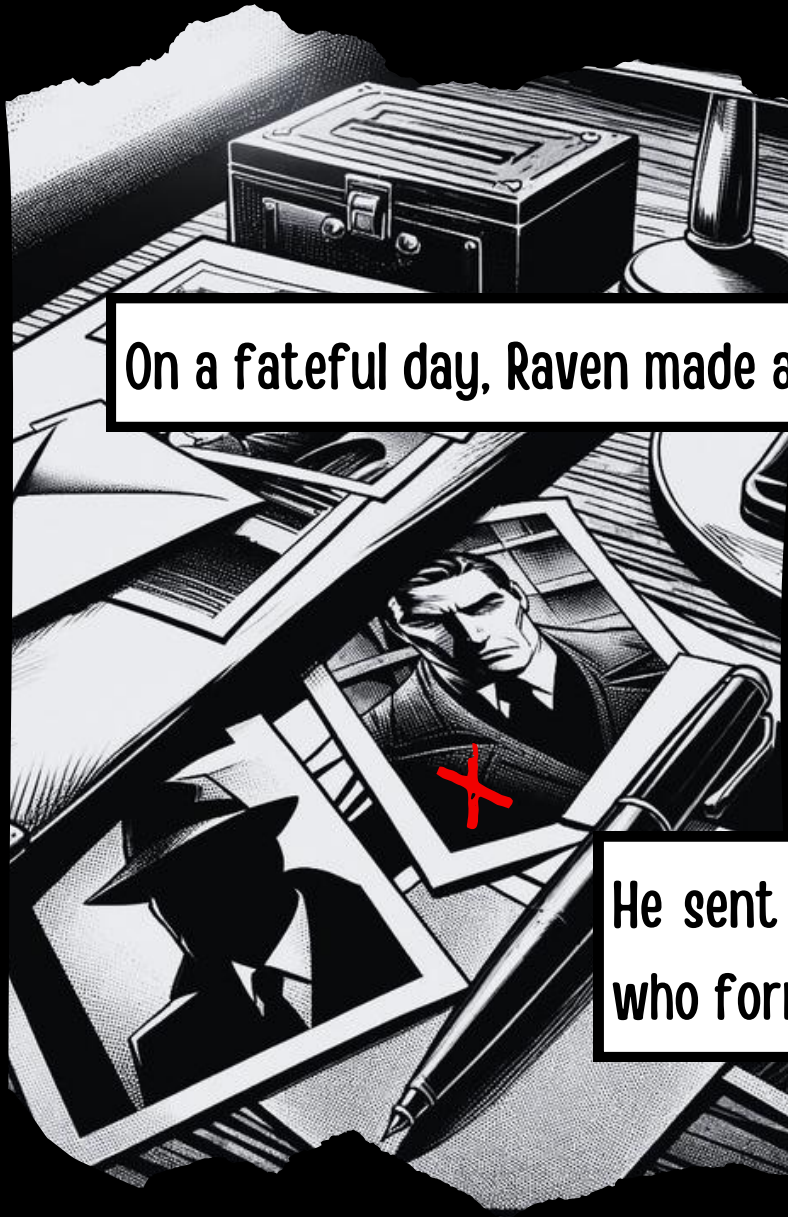
Raven knew that some of the spies in his network would eventually be compromised – that's just the nature of the game. So he set up a system, where his allies could easily signal if they didn't want to receive further communications, effectively opting out of the network. This ensured that Raven wouldn't send letters to captured spies, risking his letters getting into enemy hands.

Like the unsubscribe button!

“Precisely. As a bulk sender, you need to provide an easy way for your subscribers to opt out of your email communications.”

“But don't worry. If you are using an Email Service Provider, like **GetResponse**, the unsubscribe button is automatically added to your emails.”





On a fateful day, Raven made a mistake.

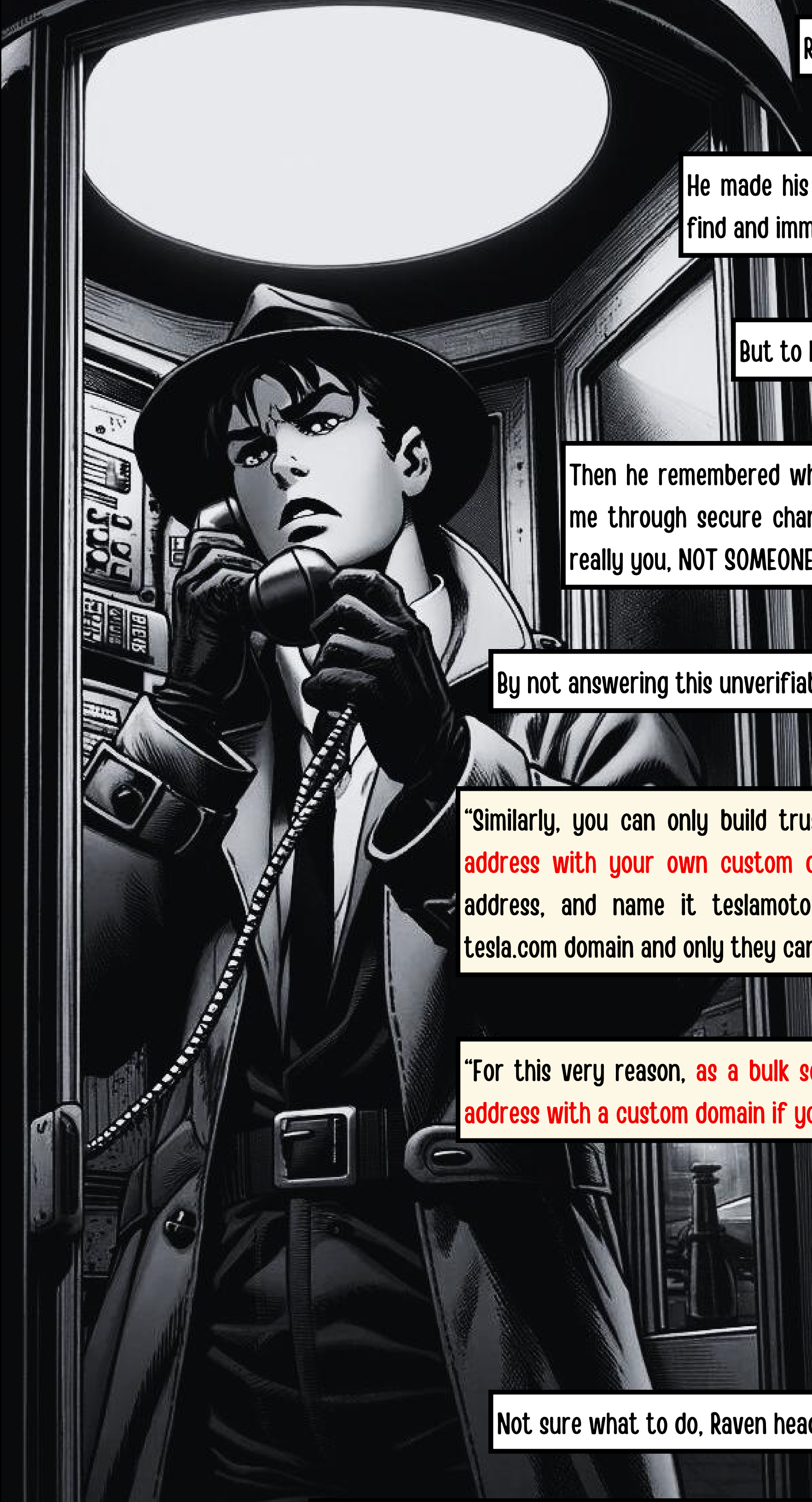


He sent a letter to a spy - a man named Jürgen - who formerly opted out from his list.



And the letter made its way to the hands of the Shrike, who promptly dispatched his CLEANERS.



A black and white comic-style illustration of a man in a trench coat and fedora hat. He is holding a rotary phone receiver to his ear with both hands. He has a serious, slightly worried expression. The background shows the interior of a public phone booth with a large circular light fixture on the ceiling and a window looking out onto a street.

Raven barely managed to escape.

He made his way to the first public phone he could find and immediately called his handler, the OWL.

But to his frustration, the Owl didn't answer.

Then he remembered what she used to tell him. "Always contact me through secure channels, otherwise, I can't be sure that it's really you, NOT SOMEONE ELSE PRETENDING TO BE YOU."

By not answering this unverifiable call, she was merely following protocol.

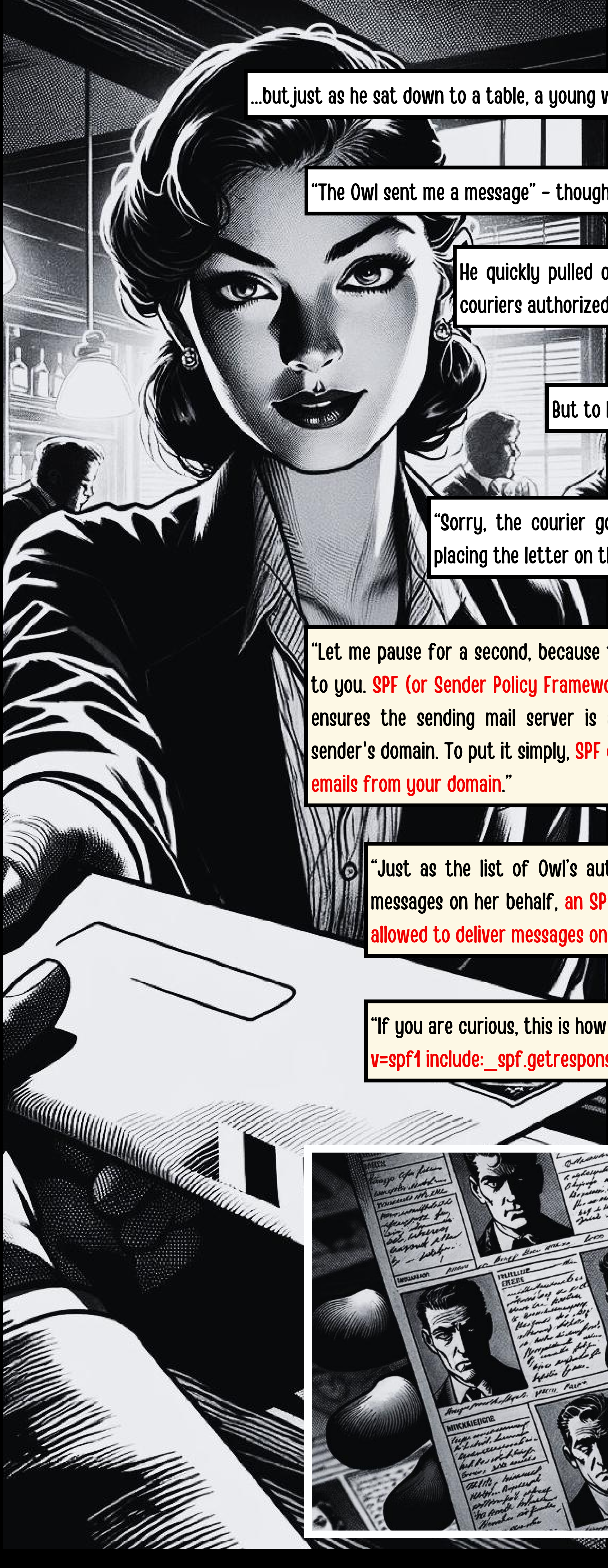
"Similarly, you can only build trust if you are **using a professional email address with your own custom domain**. Anyone can create a free Gmail address, and name it teslamotors@gmail.com, but only Tesla has the tesla.com domain and only they can use the info@tesla.com email address."

"For this very reason, **as a bulk sender, you must use a professional email address with a custom domain if you want your emails to be delivered.**"

"Back to the story."

Not sure what to do, Raven headed for a bar to gather his thoughts...





...but just as he sat down to a table, a young woman appeared and handed him an envelope.

“The Owl sent me a message” – thought Raven. “She’s gonna get me out of here.”

He quickly pulled out his notebook which contained the list of couriers authorized to deliver messages on behalf of the Owl.

But to his surprise, this woman wasn’t on the list.

“Sorry, the courier got sick, I had to fill in.” – said the woman, placing the letter on the table, then quickly left through the exit.

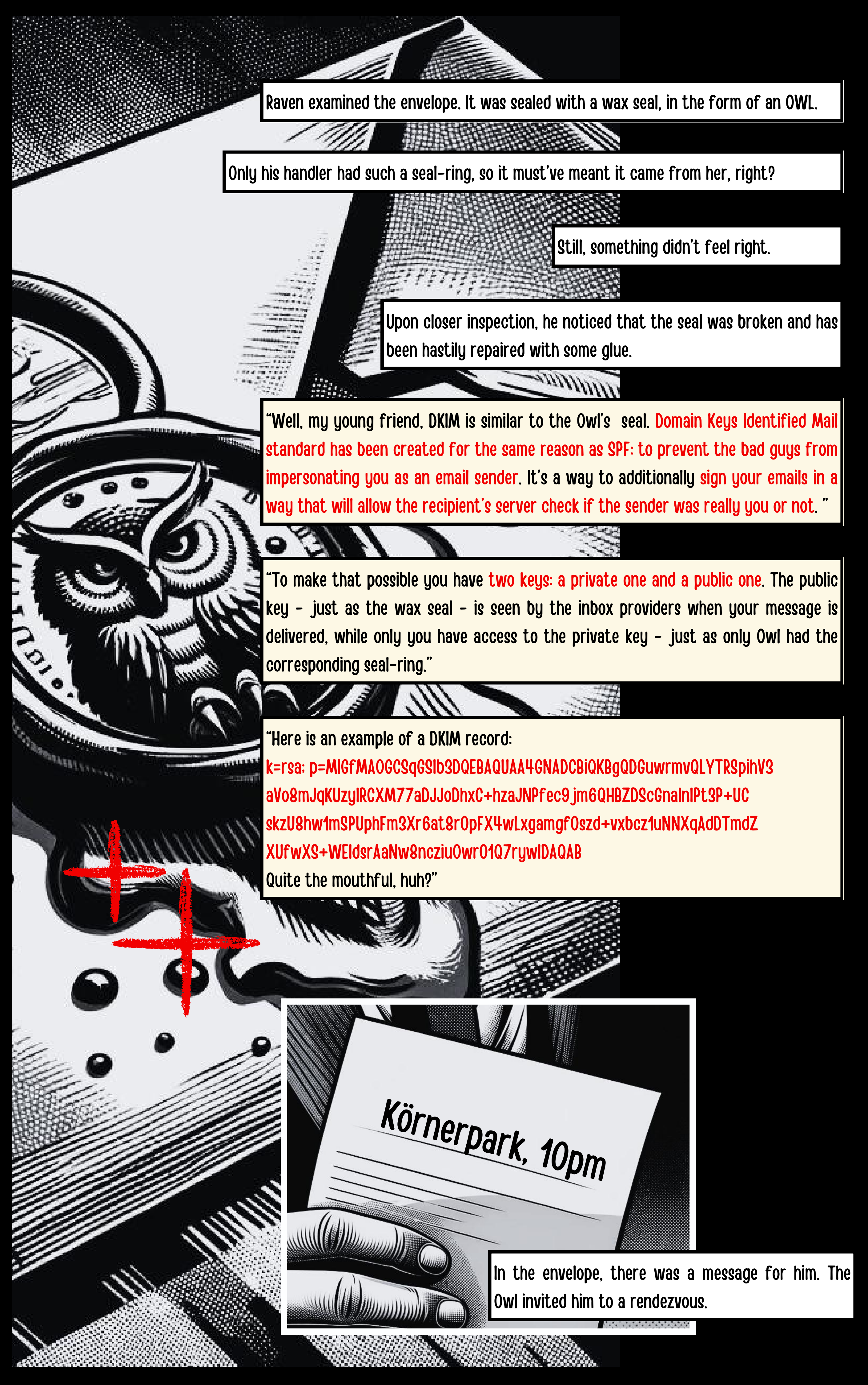
“Let me pause for a second, because this is the part where I’m going to explain SPF to you. **SPF (or Sender Policy Framework) is an email authentication method**is which ensures the sending mail server is authorized to originate mail from the email sender's domain. To put it simply, **SPF defines which IP addresses can be used to send emails from your domain.**”

“Just as the list of Owl’s authorized couriers tells Raven who can deliver messages on her behalf, **an SPF record tells the inbox provider which IPs are allowed to deliver messages on behalf of the sender.**”

“If you are curious, this is how an SPF record looks like:

`v=spf1 include:_spf.getresponse.com ~all`”





Raven examined the envelope. It was sealed with a wax seal, in the form of an OWL.

Only his handler had such a seal-ring, so it must've meant it came from her, right?

Still, something didn't feel right.

Upon closer inspection, he noticed that the seal was broken and has been hastily repaired with some glue.

“Well, my young friend, DKIM is similar to the Owl's seal. **Domain Keys Identified Mail standard has been created for the same reason as SPF: to prevent the bad guys from impersonating you as an email sender.** It's a way to additionally **sign your emails in a way that will allow the recipient's server check if the sender was really you or not.**”

“To make that possible you have **two keys: a private one and a public one.** The public key - just as the wax seal - is seen by the inbox providers when your message is delivered, while only you have access to the private key - just as only Owl had the corresponding seal-ring.”

“Here is an example of a DKIM record:

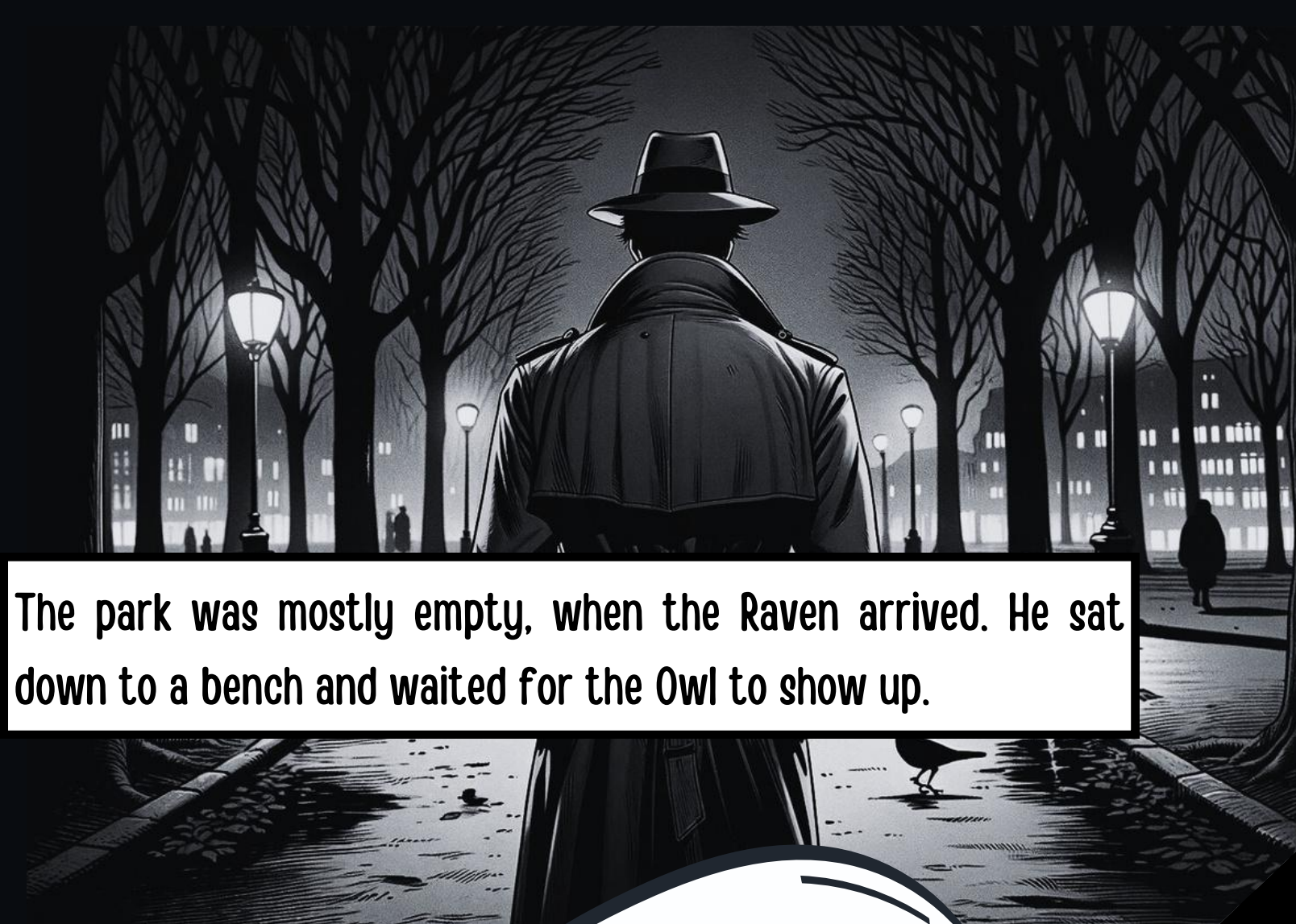
**k=rsa; p=MIGfMAOGCSqGSib3DQEBAQUAA4GNADCBiQKBgQDGuwrnvQLYTRSpihV3
aVo8mJqKUzyIRCXM77aDJJoDhxC+hzaJNPfec9jm6QHBZDScGnalnPt3P+UC
skzU8hw1mSPUphFm3Xr6at8rOpFX4wLxgamgf0szd+vxbcz1uNNXqAdDTmdZ
XUfwXS+WEIdsrAaNw8ncziuOwr01Q7rywIDAQAB**

Quite the mouthful, huh?”



Körnerpark, 10pm

In the envelope, there was a message for him. The Owl invited him to a rendezvous.



The park was mostly empty, when the Raven arrived. He sat down to a bench and waited for the Owl to show up.



Suddenly, he heard a metallic sound from behind.



Congratulations, Raven.
You've finally found me.

It was him. The Shrike.



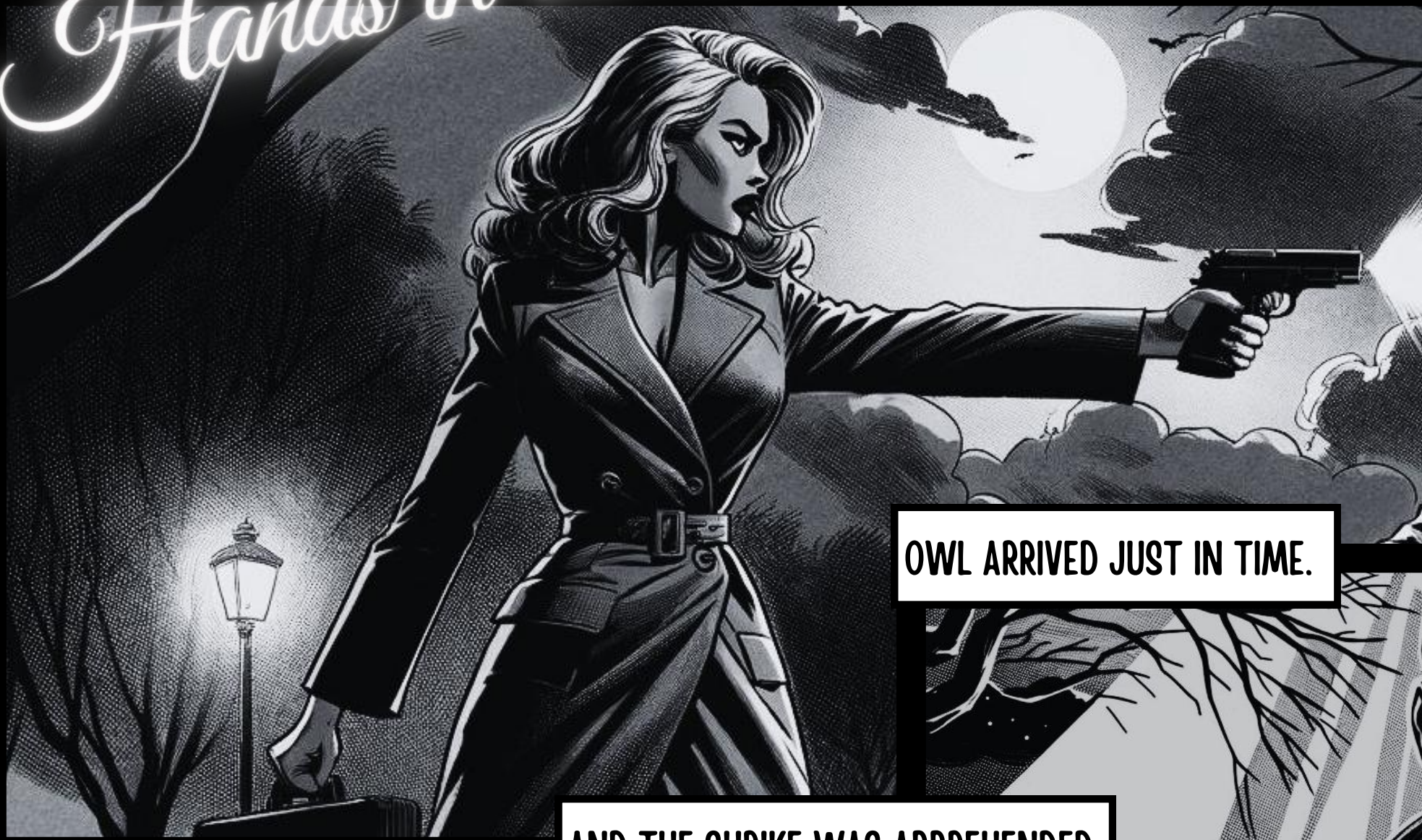
I have to admit, you gave me quite the headache in these past months. And that trick with jumping out the window to lose my men? Fabulous! But there's nowhere to run now, I'm afraid.

The Shrike then explained how he intercepted Owl's message, breaking the seal and changing its contents, then sending a fake courier to deliver the package to the bar.

Any last words?

LOOK BEHIND YOU.

Hands in the air!



OWL ARRIVED JUST IN TIME.

AND THE SHRIKE WAS APPREHENDED.



Wait, how did Raven know it was a trap?

“Remember, that the woman delivering the message wasn’t on the list of approved couriers? And that the seal on the envelope was broken?”

“Raven and Owl had a protocol for such scenarios. They knew that sooner or later, someone would try to impersonate Owl, so they agreed to treat all suspicious messages with caution. Raven managed to get in contact with Owl who confirmed that the message wasn’t sent by her. By that, they knew it was a setup by the Shrike, so they prepared a trap for him, using Raven as the bait.”

“The two spies’ protocol is similar to how DMARC (Domain-based Message Authentication, Reporting & Conformance) works. **DMARC tells the recipient’s server what to do if both SPF and DKIM authentication fail. Depending on the protocol’s settings, the email is either accepted (policy none), quarantined or placed in the spam folder (policy quarantine) or rejected (policy reject).** Basically, it **protects a domain from being spoofed.**”

“Here’s an example record: **v=DMARC1; p=none; rua=mailto:reports@example.com**”

“Remember, that **you need to set up all three records - SPF, DKIM and DMARC - in your domain’s DNS settings in order to become properly authenticated as a bulk sender.** Failure to do so will result in your emails not getting delivered.”



Owl congratuled Raven on the successful mission.

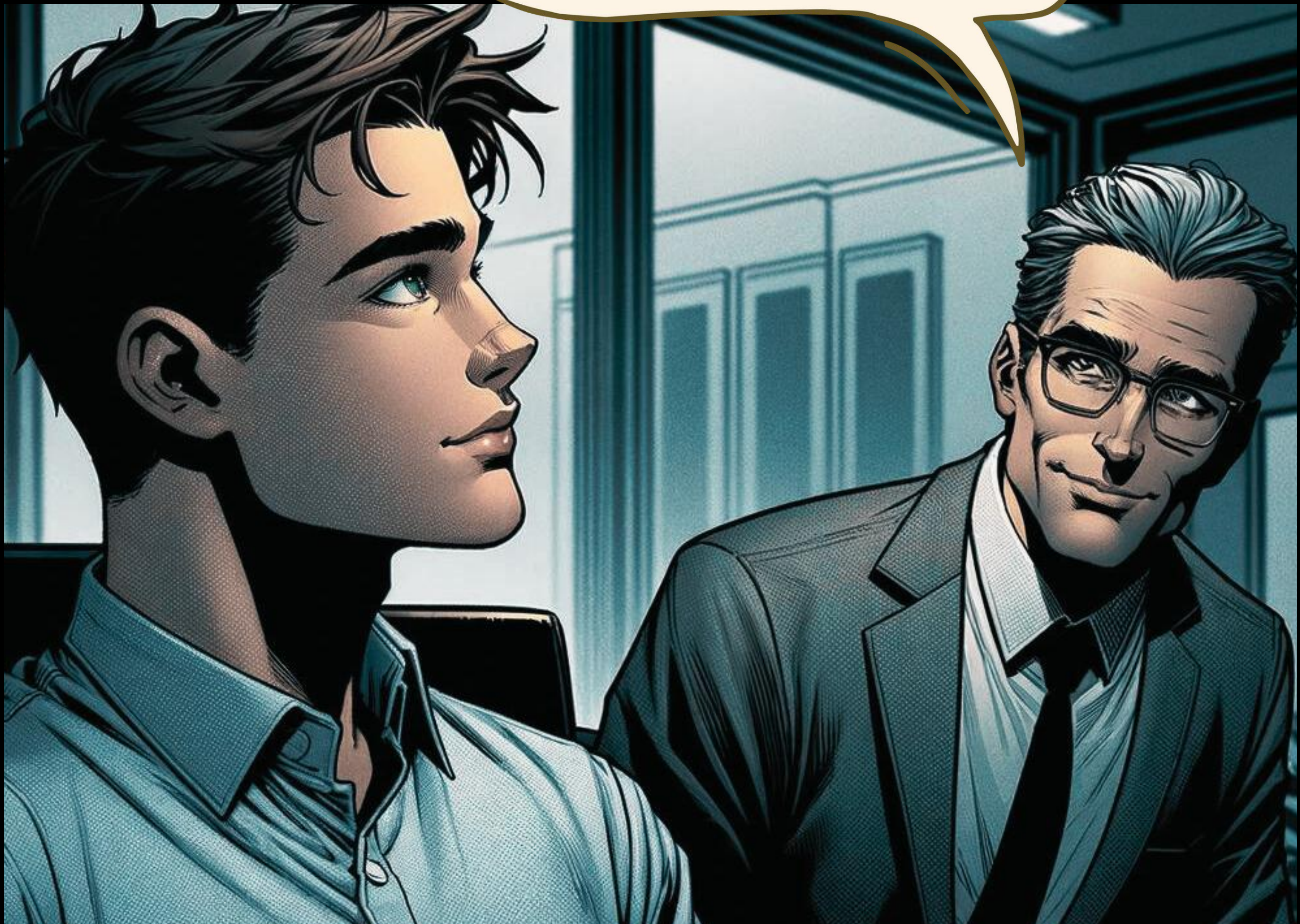


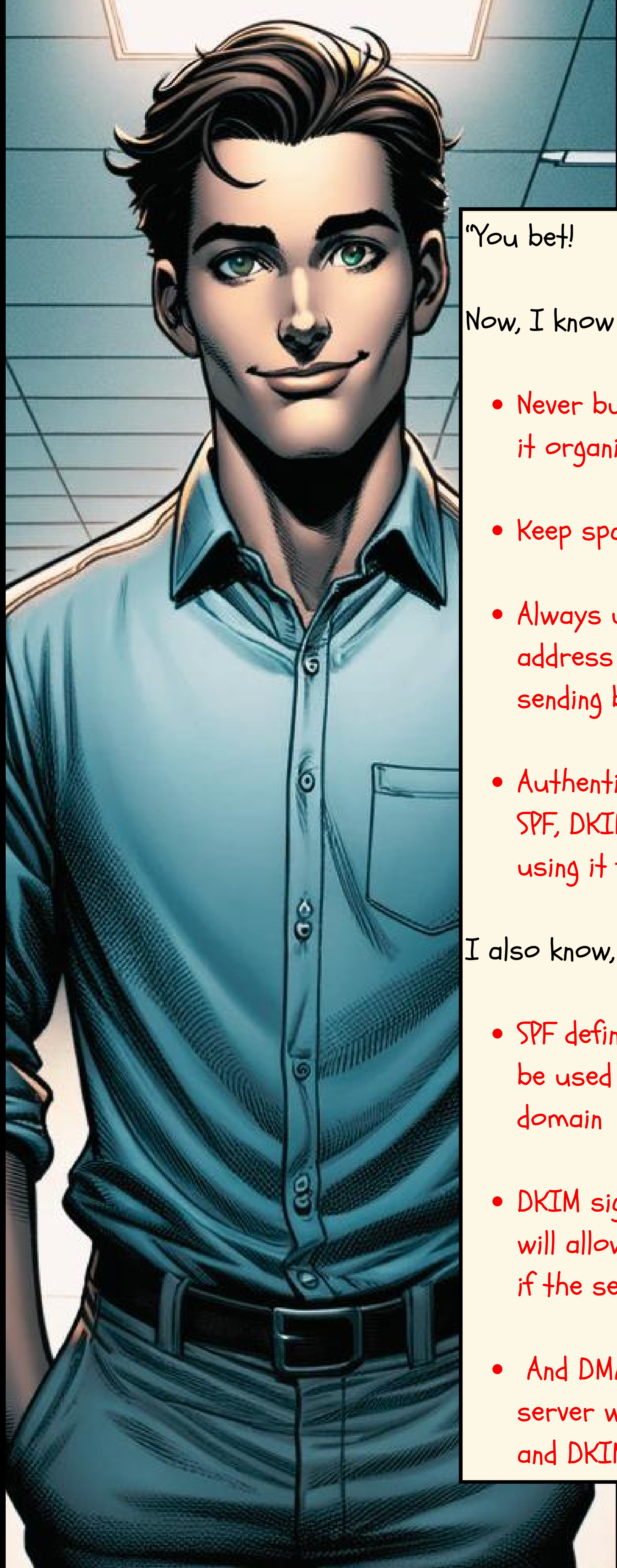
The Shrike was arrested and charged with espionage and high treason. He will spend the rest of his life behind bars.



Raven went on many more assignments, traveling the world with Owl. Then, on one day, he disappeared without a trace. Some say he died on a mission. Others think he defected, went rogue. Maybe he left the spy life behind and found a new career. Who knows?

So, did you learn something from my little story?





"You bet!

Now, I know to

- Never buy an email list, instead, build it organically
- Keep spam rates below 0.3%
- Always use a professional email address with custom domain for sending bulk emails
- Authenticate my sender domain with SPF, DKIM, and DMARC before I start using it for sending bulk emails

I also know, that

- SPF defines which IP addresses can be used to send emails from your domain
- DKIM signs my emails in a way that will allow the recipient's server check if the sender was really me or not
- And DMARC tells the recipient's server what to do if both the SPF and DKIM checks fail

“Very good. And if you need further help, or information on how you can authenticate your domain, you can read these additional [GetResponse resources](#).”

[A beginner's guide to email authentication](#)

[Gmail and Yahoo's authentication changes: All you need to know](#)

[Adapting to new email standards in 2024](#)

[Webinar: Email authentication explained](#)





"My pleasure! Now, if you excuse me, I gotta get going. Have a great evening!"



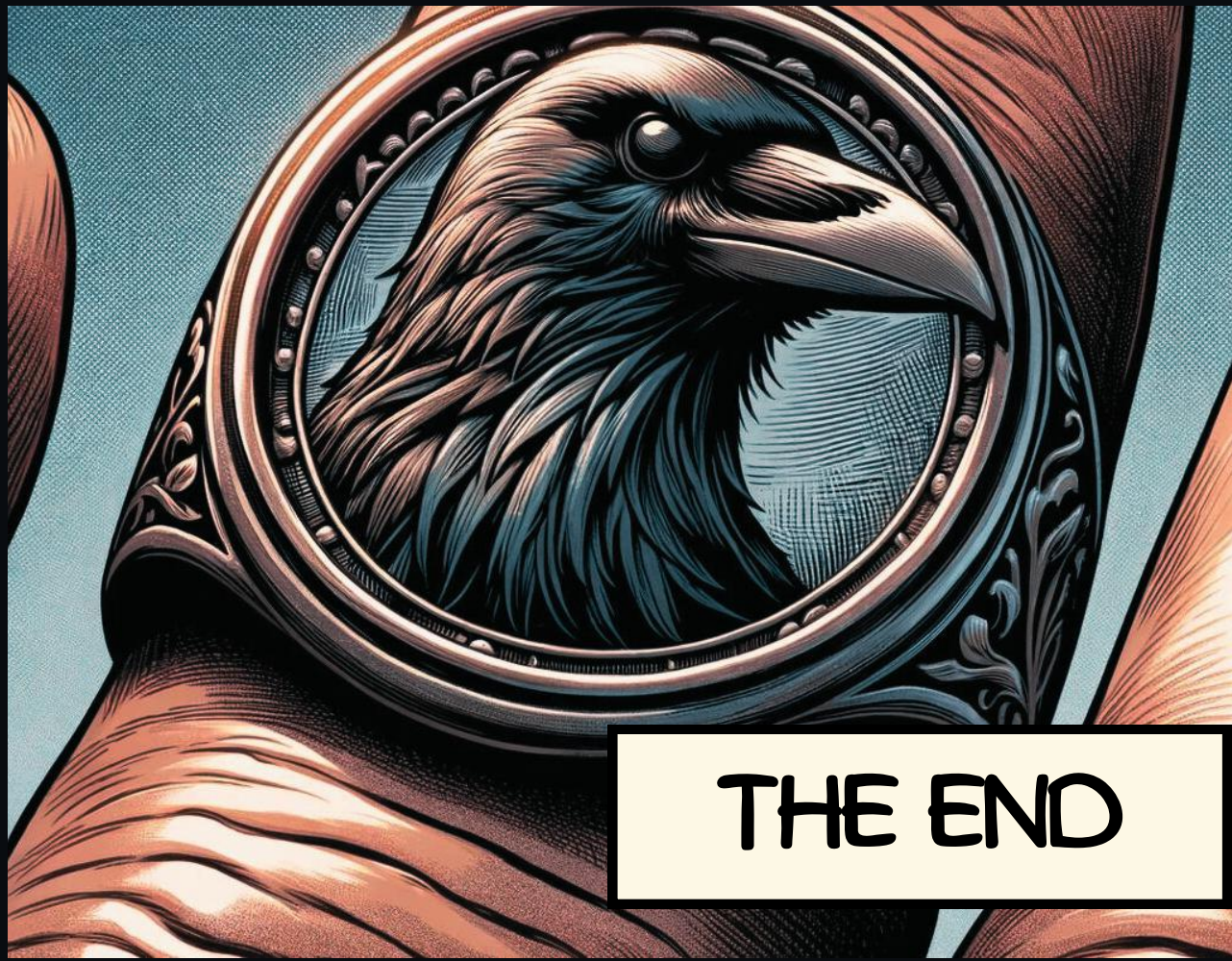
".Wait! Tanner, the story... Was it true?"



"Just a story, kid. Nothing more."



"Just a story..."



THE END