

Chapter 68 - Cyberspace Foray I

By the time I left Shori's Noodles and headed home, my hands were nothing but throbbing centres of pain, my fingers cramped into unnatural positions, radiating a heat the kind that only pure agony could; that pulsating, burning sensation of having thoroughly overdone it.

'*Can't really complain, though,*' I thought, as I tightened the wet towel Mr. Shori had given me around my hands, securing the knots with my teeth.

The cool dampness combined with the pressure was the only relief in sight.

Despite the discomfort, the gains from the day made it all seem worthwhile in my mind.

While I hadn't managed to actually *do* anything with the new Technique-Skill yet, I wasn't too upset with that. I wanted to wait until I had Level 1 in both Anima and the Skill itself first anyway, before I even tried to use it.

It was like playing with a loaded gun, after seeing what Mr. Shori had been able to do with this strange technique. I wanted some proper knowledge and muscle memory downloads from the System first; before I tried doing anything with it.

As I pulled up the System Notifications, reflecting on the day's intense, albeit unconventional, training at Mr. Shori's—extracurricular to put it mildly—a smile crept across my face through the pain. Watching those numbers go brr was always a pleasure after all, even when it hurt.

[System]: *200xp gained for Reflex Attribute.*

[System]: *500xp gained for [Cooking] Skill.*

[System]: *400xp gained for Tech Attribute.*

[System]: *300xp gained for [Negotiation] Skill.*

[System]: *100xp gained for Ego Attribute.*

[System]: *300xp gained for Intuition Attribute.*

[System]: *400xp gained for [{Anima Razor}] Technique-Skill.*

[System]: *500xp gained for Anima Attribute.*

[System]: *100xp gained for Reflex Attribute.*

[System]: *100xp gained for Ego Attribute.*

[System]: *100xp gained for Intuition Attribute.*

[System]: *200xp gained for Edge Attribute.*

The experience spread for my [{Anima Razor}] training especially was quite the sight for sore eyes.

Gaining experience in five different Attributes at the same time was unheard of, even if the overall gains were quite minimal for each particular one—it would still be a lot more beneficial to just grind them out normally, using Common, Uncommon or even Rare Skills, with their lower total Attribute count, but having the option to make progress in so many at once still felt amazing, nevertheless.

'Getting some extra [Negotiation] experience from taking part in the customer-facing aspects of the job is also something very noteworthy... I guess it incorporates sales talks and things like PR in it as well; I wasn't exactly negotiating prices, after all. Considering I have a pretty important negotiation coming up, I really should just make this part of my daily routine for the next few days, shouldn't I?' I thought to myself with a growing certainty. All of my efforts were singularly focused on making sure that the Operator meeting would go the way I wanted it to.

'I'll ask Mr. Shori tomorrow; whether or not he minds. The customers seemed happy enough with me being there; even if working in a customer-facing environment isn't exactly my strong suit, nor something I truly want to do... But the experience is something I can't say no to; not at this stage.'

Once home, I quickly took another shower, hoping that the relaxing warmth and feeling of the water prickling against my skin would help ease up the pain in my hands—but I quickly realised the folly of my ways.

"Fuck, fuck, fuck..." I muttered under my breath, as my hands started burning even more.

Heat and constant irritation from water hitting them was definitely not the answer.

Subsequently, I finished up as fast as I could, before once again creating a bit of a cold compress for my hands and heading into my room.

I had more grinding to do yet; these coming days were bound to be chock-full of back-to-back grind sessions like this.

Slotting in the SPG-01 shard into my neck slot, briefly having to trust my severely messed up hands to do their job before I quickly bound them once again, I delved back into Kill Joy's class; manifesting a chair as the first port of call, before his digital avatar had even fully finished loading.

'I'm definitely getting better at this,' I thought to myself with a satisfied smile as I took my seat and waited for Kill Joy to start today's lesson...

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The first hour back in the netrunning grind was exactly what I expected, with Kill Joy rolling out a series of programs and quick-hacks, both in segment and subroutine form. He presented them as a showcase of the range and depth they could offer, both from the perspective of a netrunner and a typical corpo-drone.

The latter, as Kill Joy dryly noted, primarily focused on crafting programs for big corporations aimed at slashing jobs and boosting executive profits—or, as those corporations would spin it, "enhancing efficiency and championing a culture of rapid innovation."

Honestly, my attention waned during these parts of the SPG-01 shard's guided lessons.

Despite my best efforts, after the umpteenth explanation of corporate programs designed to perform singular tasks with ruthless efficiency, my interest dwindled. These segments lacked any creative or alternative uses that might have sparked more of my attention.

While Kill Joy delved into the intricacies of these programs—how they achieved their speed and efficiency and the nuances that made them effective—I only half-listened, scraping just enough engagement to glean some experience but not enough to fully absorb everything the shard had to offer.

I did, of course, feel a twinge of guilt about this, especially considering the cost of the shard and the fact it was Gabriel's money funding this somewhat lackadaisical approach.

But trying to compress what was meant to be a year's worth of netrunning lessons into just a few weeks necessitated some tough choices; sacrifices had to be made. Or as Kill Joy's lessons on corporate efficiency might suggest, I had "minimized production costs to expedite the development of the market-ready prototype for initial focus-group testing."

After about an hour, we hit the part of the lecture I was actually jazzed about—my absolutely favorite section in the whole shard so far, actually.

"With all that said, let's dive into some hands-on experience in the Cyberspace you're most likely to encounter in the near to medium-term future, girl," Kill Joy declared with a knowing smirk.

We had ventured into faux-Cyberspaces a few times already, but today's session was set to be a bit of a different, more unique experience.

"As I promised last time, today's excursion won't be in the usual faux-Cyberspace we've been exploring. Instead, we'll be stepping into a re-creation of Neo Avalis' very own Cyberspace. This version is about 3.347 years out of date from today, but it should still give you a nearly perfect snapshot of what you'd encounter if you were to venture into the real thing on your own today."

That's right. Today was a big day.

I had been eagerly anticipating this part of the shard after skimming through the vast array of lectures and sessions it offered more than two weeks ago; and today was finally the day!

For the very first time, I was going to get a glimpse of Neo Avalis' Cyberspace—even if it was just a slightly outdated re-creation, it felt like the perfect intro to the world of netrunning.

At Kill Joy's cue, I sprang from my chair and hurried over to his side—a routine we had down pat by now, as he was the one who conjured up the small portal that let us step into Cyberspace; something we had done about a dozen times already.

As we stepped through the portal, which appeared as a mere ripple in the air revealing a completely different environment on its other side, we found ourselves at a small three-way intersection.

"Now, as a resident of a Megabuilding, your starting location for this little excursion has been set here, at this crossroads, to ease you into the experience," Kill Joy explained, his voice echoing slightly in the vast digital space. "Megabuildings are some of the most dense areas in Cyberspace, due to the sheer number of connections, servers, and netrunning activities

that occur within them. We wouldn't want to overwhelm you by exposing you to all of that at once, girly."

As he spoke, the surrounding area began to solidify and gain detail—the Cyberspace coming to life as the shard loaded the environment around us.

"This is intersection 6 in Baikonur's Industrial Zone, southwest of central Neo Avalis, just in case you need to find your way back or want to kick off your real-life Cyberspace adventures right here," Kill Joy added, nodding thoughtfully. Right after he spoke, my cerebral interface buzzed lightly, updating with the location data he had just provided.

As the shard continued to load, the Cyberspace around us began to pulse with life, each digital construct snapping into place with vivid clarity.

Skyscrapers constructed of light and data soared into the virtual sky before me, their windows flickering with the glow of untold numbers of active interfaces, connections and data transfers.

Neon advertisements hovered in the air around us, each promoting a variety of cybernetic enhancements and services.

Their dazzling holographic displays seemed almost sentient, reaching out towards me with tantalizing offers, as if they could sense my presence and passing curiosity. I was downright entranced with the first advertisements that continued playing enticing promotional videos of the sheer impossible things their advertised products were capable of; but my attention was stolen away by even more things loading into existence around us.

A cluster of security programs materialized, resembling robust, heavily armored sentinels.

These faceless enforcers, akin to amalgamations of humanoid shape, coupled with code snippets and impossible alterations to their form, patrolled the area with an air of authority, their presence scanning for intrusions or data corruption. Their presence was a stark reminder that even in this digital world, the corporations and the government under their control's rule of law was absolute.

As the faux-Cyberspace came into complete focus, the atmosphere around us grew even more charged. The air hummed with an electric buzz, reminiscent of a live wire—a vivid illustration of the raw energy that powered this virtual realm.

More neon lights flickered to life, painting the digital landscape in vivid hues of blue and pink, casting long, stark shadows across the ground.

The now illuminated ground beneath our feet was a patchwork of translucent tiles that occasionally flickered, revealing glimpses of underlying code snippets or the brief spark of color from a code transfer passing by—like looking through ice into a frozen river teeming with fish.

Every few steps, the tiles would flicker outward from our footsteps, sending digital ripples across the landscape, informing whomever or whatever of our existence and exact position.

Directly ahead, a towering datastream erupted like a digital geyser, its streams of code cascading upward before dispersing into a fine mist, simulating the chaotic beauty of an upside-down waterfall.

To my left, a virtual tree bloomed suddenly into existence, its leaves comprised of tiny, shimmering pixels that changed color with the virtual wind that I suddenly felt brushing against my avatar's skin. It was utterly surreal to see natural elements reimagined in this pixelated form, their movements dictated by algorithms rather than biology.

Above, what looked like a traditional sky was instead a vast network of data paths, where streams of light zipped back and forth with unknown purpose, their trails lingering in the air like the tails of shooting stars. Occasionally, a burst of data would explode like fireworks, marking the completion of some unseen transaction or operation.

Even the clouds themselves were part of the tapestry, the massive constructs briefly flashing in different hues and colors as thousands upon thousands of data-streams were sent and received at any given moment.

But the most startling aspect of the whole thing, were the citizens of this digital world—avatars representing real individuals.

Some appeared as perfect human replicas, while others embraced more fantastical elements, sporting wings or tails, their appearances limited only by imagination and coding skill.

A few rare instances of purely code-based constructs blipped past as well, blinking in and out of existence every few seconds as they continued their way to whatever destination they had in mind.

The conversations of the countless avatars were a mix of audible and silent data exchanges—some mirrored as normal conversations, while others a series of images flashing by rapidly or utterly silent—creating a symphony of strange, digital noise that was both overwhelming and exhilarating.

All around us, the Cyberspace of Neo Avalis pulsed with a frightening amount of life.

It wasn't just a space; a location, but rather a living, breathing *entity* that was simultaneously strangely familiar and utterly alien.

A world fully constructed of data and dreams, where the impossible not only existed but *thrived*. The more the environment took shape, the more I felt both awe and a severe twinge of vertigo as the line between the virtual and the real continued to blur.

The previous excursions to the faux-Cyberspace had already caused me a lot of trouble with derealisation, after spending quite a lot of time inside of them, but I now realized that Kill Joy had been right all along—without those faux-Cyberspace sessions, simply entering this recreation of the real thing would have absolutely knocked me out.

This place was on a completely different level than anything I had ever experienced or imagined possible. While Neon Dragons had featured a Cyberspace, comparing that to this

was like comparing a child's playhouse to managing an entire nation—such was the disparity in sheer complexity, visual difference and scope.

I spent the first ten minutes simply soaking in the new environment, trying to adjust to the overwhelming digital world around me.

At some point, I turned my attention to Kill Joy's avatar, which had transformed from its usual human-like appearance to a solid gold version.

"Very humble..." I quipped lightly, noting that a gold avatar was perfectly in line with Kill Joy's flamboyantly narcissistic persona from the game.

Glancing down at myself, I noticed I was still just Sera, unchanged and distinctly human without any digital enhancements—plain in comparison to the myriad of modified avatars parading around near us.

Feeling somewhat plain and out of place, I immediately turned to Kill Joy with a query, "Say... How do I change my avatar, Mr. Joy? Could I go full-gold like you?"

He struck a pose, clearly reveling in the opportunity to flaunt his gleaming avatar, my subtle flattery hitting its mark; as it usually did. "My dear girl, avatar customization is a capstone of our sessions! It's best to initially navigate this space in a form closest to your natural one, as real as can be here. I'll introduce you to avatar customization at the conclusion of the manifestation-based module. You'll need its teachings to fully grasp the process," he explained.

With a playful wink, he added, "If you're good, I might even throw in the Kill Joy special gold-skin as a bonus when you complete the shard, girl."

I nodded enthusiastically—more for his benefit than any real eagerness to adopt a flashy golden appearance—and once again turned to take in the digital landscape around us. With so much to see, it was hard to focus on just one thing; the vibrant Cyberspace was a feast for the senses.

"Now, for today's lesson," Kill Joy began, recapturing my attention, "we'll focus on navigation, infiltration, and combat in Cyberspace."

My eyes widened in surprise at that assertion.

We hadn't delved much into infiltration or combat at all yet, so his announcement that we'd be jumping straight into practical applications felt unexpectedly abrupt, especially given Kill Joy's preference for a traditional approach—usually theory first; quite a lot of it; *then* practice.

"Worry not, girl," he quickly added, noticing my slight alarm before I could even express it. "I'll be right here with you the whole time, and we're alone in this Cyberspace. All the avatars you see are just specters of the real thing; they're recordings from when this recreation was captured. They can't hurt you, nor can you truly interact with them."

'Ah, they're like NPCs,' I thought to myself, simplifying the explanation in my head to make it easier to digest. It always helped to frame these overwhelming new concepts in familiar gaming terms, which made the barrage of information I'd been facing since arriving in this world more manageable.

'Maybe I should start creating a wiki or something?' I pondered quietly. 'Buy a small server, host a private wiki, jot down everything I remember from Neon Dragons, add new learnings, and try to cross-reference with a program? That might help me pin down my exact place in the timeline and figure out just how far this world has deviated from the game I knew...?'

Perusing video game wikis had been a significant hobby of mine—mostly for scouring obscure knowledge but occasionally also for contributing. Whenever I stumbled upon something unusual, missing, or just plain interesting, I was quick to update the wiki.

A wiki's success depended on everyone pitching in, after all.

Tucking away the idea of creating a wiki for later, I turned back to Kill Joy and prompted him to continue the lesson. "So... where do we start?"

A grinning emoticon popped up in front of his face as he answered, "That's the fun part: Wherever you want! Welcome to Cyberspace, Sera; enjoy your stay! Feel free to explore a bit. I'll stick close by, and if anything piques your interest, dive in. Normally, you'd have to stick to the rules and avoid breaking laws or stepping on toes in the real Cyberspace; here, though, you can let loose. Try everything! Be a tourist, a shopper, even a criminal—whatever strikes your fancy at the moment."

I blinked, taken aback for a couple of reasons.

First, his casual suggestion that I could even dabble in virtual criminality was more than unexpected.

More strikingly, however, the freedom he handed me in a guided lesson seemed out of character compared to our usual structured interactions. Up until now, the SPG-01 shard's lessons had been much more structured, almost like a traditional school class.

Kill Joy would set a task, provide some guidance, and then review my work, pointing out both mistakes and successes before introducing the next challenge.

But this? This "do whatever you want" approach? It threw me for a loop.

I didn't really have any specific goals besides finishing the shard, unlocking the first segments and subroutines of quick-hacks, and starting to build my own library of them. Was there any other reason for me to be here in this simulated Cyberspace...?

Upon reflection, though, I quickly realized this was *precisely* the opportunity I needed at this moment.

A replica of Neo Avalis' Cyberspace, all to myself to explore and experiment with? It was an ideal playground to sharpen my netrunning skills and prepare for the upcoming interview with the Operator.

What more could I ask for to boost my netrunning prowess ahead of the meeting?

As ideas began to coalesce in my mind about what I needed to explore, I turned to Kill Joy with a burst of energy.

"Let's go!" I exclaimed, launching into a sprint down a randomly chosen street.

The first thing on my checklist was mobility—specifically, how movement functioned in Cyberspace.

During our faux-Cyberspace training before, moving around felt just like it did in the real world, but this re-creation had a distinct twist. It was subtle, yet I instantly sensed something peculiar about the sensation of the "solid" ground under my feet and the "air" passing through my digital lungs as I moved.

As I picked up speed along the pedestrian pathways, steering clear of the bustling data-highways that mirrored where streets would be in the real-world, I noticed two distinct differences right away.

Firstly, my feet never truly touched the ground.

The data constructing "me" and the data making up the ground were two distinct entities that never actually intermingled the way that my real feet would on actual ground. Instead, there was this almost imperceptible gap where I would bounce off the surface just millimeters shy of contact, sending ripples of data scattering from beneath my boots.

This interaction, or "data-handshake" of sorts, created a kind of friction that propelled me forward—a bizarre yet oddly intuitive concept. It didn't matter whether it was data-handshakes or physical friction; both effectively moved me where I needed to go, after all.

The second realization was even more intriguing.

With each step, I had an innate understanding that I could potentially breach the data of the tile beneath me during these handshakes. Moreover, I received a brief overview of the tile's purpose and the intentions of its creator or current controller.

Each tile had its own unique digital signature that I instinctively recognized the moment my foot "touched" it, essentially providing me with a basic profile of what I was interacting with.

Encouraged by Kill Joy's advice to try everything, I abruptly halted on a random tile and crouched down for a closer inspection.

Staring down at the semi-translucent tile, I tried to decipher what it was made of but couldn't pin it down. Initially, it resembled a massive slab of concrete—perhaps the rockcrete variant commonly featured in Neon Dragons—but its semi-translucent and oddly springy nature ruled that out.

As I leaned in closer, the view shifted, revealing an endless, all-encompassing ocean of data beneath this and every surrounding tile. The overwhelming sight briefly disoriented me,

sending a bout of vertigo through me that caused me to lose my footing and tumble onto the ground with a thud.

"Ouch..." I mumbled, rubbing my digital backside, surprised by the pain. The sensation prompted an immediate question. "Wait... Why does it hurt...?"

"You're feeling pain because each action has an equal and opposite reaction," Kill Joy's voice chimed in unexpectedly from the side. "Just like in the real world, if you punch a wall, the wall '*punches*' back—not literally, of course, but the effect is the same. Here in Cyberspace, if you interact with a tile," he tapped the tile beneath his bare feet, sending ripples through the data below, "the data making up the tile reacts to your actions. In your case, it was a physical reaction."

I stared at him for a long while, trying to wrap my head around his explanation but struggling to reconcile it.

The concept was straightforward in the physical world—punch a wall and it hurts because the wall is solid and unyielding.

Simple.

But in a digital realm, how could physical pain make any sense? I didn't truly exist here in a physical form, so why would the laws of physics apply? How could a digital fall cause me pain in a place where traditional physical rules shouldn't even be relevant?

Feeling my utter bewilderment, Kill Joy spontaneously manifested a blackboard right there in the middle of the walkway; prompting a bit of a wide-eyed reaction from my side.

'I guess he did say that manifestation was really just about forcing your will onto the digital space around you... I just didn't expect that to work in the middle of the street like this...'

"Let's think of your digital self as a highly sophisticated program," he started, sketching a simple human figure on the board. "That's essentially what we are in Cyberspace, where everything is fundamentally just data, in one way or another."

He proceeded to draw various objects around the figure—buildings, roads, trees, other people, and finally the tile under my "human" figure. "Now, when all these elements are data confined within their respective programs, they operate smoothly, but independently. They're not *designed* to interact beyond their defined parameters," he explained, encircling each sketch in bubbles that didn't touch.

I nodded, following his logic, which aligned with my basic understanding of programming.

A meal-planning app works with the ingredients in your fridge but doesn't access the grocery store's inventory—it's not designed to interact with external data sets like that, unless designed to do so in the first place.

"This isolated functioning doesn't apply in Cyberspace, where everything can interact with everything else. To move somewhere, your data must be able to travel from one point to another in this 3D space," he continued, drawing more tiles under each bubble and then

connecting them. "The simplest method for this data movement is through a pre-existing network."

He detailed further, "These tiles are more than just the ground you walk on; they're the basic conduits for all types of data transfer in Cyberspace. To go from the street to a building, you walk over these tiles, and it seems like you simply appear at your destination. But beneath the surface, 'you'—the data making up your avatar—are seamlessly handed off through the vast networks of Cyberspace from tile to tile until you arrive."

With a few more strokes on the board, Kill Joy illustrated how interconnected everything was.

I nodded again, grasping the analogy—it was like a message being passed hand-to-hand until it reached its destination, only in this case, I was the message.

Kind of like a crowd-surfing thing at a rock concert; in a way.

"Now, regarding why you're feeling pain," Kill Joy continued, shading all the images on the blackboard with a uniform criss-cross pattern to illustrate that they were fundamentally the same. "Your data—'you' in this digital realm—is essentially a program, albeit an infinitely more complex one than any daemon ever conceived. But fundamentally, you are *still* nothing but a program in this digital world."

He went on to explain, "If your data gets jumbled up with other data during network processing, it results in what you might call a 'glitch' or a service disruption. It's like your program temporarily malfunctions because a piece of your code got scrambled with another program's code. Think of it as a botched merge attempt."

As Kill Joy drew lines connecting the 'me' bubble to a part of the tile's bubble, then colored most of me blue with a small section red, and did the opposite for the tile, his point became clearer. "When you interact improperly with another digital entity here, parts of 'you' might merge with its code, creating the opposite reactions I mentioned—in this case, a physical one that causes pain, as your "program" is designed to signal pain, if something isn't right."

'Okay, so glitches cause pain, and I create them by interacting with things in ways I shouldn't. Makes sense,' I thought, mentally noting this down.

Yet, one lingering question remained, one that was crucial to my understanding of the risks involved in this digital world. "What about the real-world consequences of these glitches? Like, if I fell off a skyscraper here, would I end up physically hurt in real life? Do these digital injuries translate back to my actual body?"

This was a pivotal detail for me, as Neon Dragons abstracted such consequences with an HP system where dying in Cyberspace equated to real-world death, as your HP had dropped to zero.

Since they were both abstracted and didn't actually mean anything tangible beyond numbers; it was an easy 1:1 correlation.

But when it came to this being my real life, where I didn't really have an abstract form of HP, but rather very real blood, bones and muscles to worry about instead, the interaction might be *very* different.

"Well that one's easy," Kill Joy answered, a smug emoji appearing before his face. "When you enter Cyberspace, your consciousness is directly interfacing with the data surrounding you via your cerebral link. If your program glitches, you feel pain—this pain is very much real; just like phantom pain from a missing limb might be. You might not have an acute injury, but your body's response to it is all the same."

His words turned more grave as he continued, "If your entire avatar is deleted, your program shredded to bits beyond recognition or taken over by Daemons, however... You die. A body cannot live without a mind, after all. You will simply be an empty vessel, forever doomed to languish until its bodily functions cease to work due to a lack of agency. Your body will not be dead—but merely a shell without a ghost..."