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COLOPHON

Created by the good people of Lainchan from all around the world.

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Our advanced apologies to anyone who would like to be credited, and didn't. If you feel like you have been misrepresented, please contact junkO@openmailbox.org and we will do our best to fix the problem.



Editor's Note

By Junk

Lains, Lainzine 3 is finally here! As usual, apologies for not following any kind of schedule and probably convincing you all that the lainzine is dead. My freshman year of college happened, which severely delayed things, and we had a lot of changes to the staff and infrastructure. We're now hosted on gitlain, you can find the project here: https://gitla.in/groups/lainzine.

Something else major is Kalyx's departure to the Air Force. I'd have liked to release before that happened, ideally on lainchan's 2nd birthday, but things went as they did. What did come out before he left was a small volume of poetry you can find on /lit/. It's a project I'm interested in and I encourage anyone who's interested to contribute.

Something Kalyx suggested to me, before he left was that we start a blog of some kind for lainzine releases, so people could get immediate access to the content while we're waiting for a new zine to come out. I liked the idea, but a lot of lain users also liked the novelty of having a complete zine. So, I'm planning a project where we create a blog/website not called lainzine, that lainzine contributors can choose to have their content hosted on, as soon as it is sent or after a short period of editing. More details as that service develops.

To finish things off, I'd like to put in a solemn word for one of our illustrators, Lui. The last I heard from him was a few months ago, when his father fell ill, preventing him from contributing to this release. I have since tried to get in touch, but his email couldn't be contacted.

jan lawa Lainisan li jo e lipu mute. Lipu lawa Lainisan la sina kama jo ala e lipu ni. jan Ijopimeja (Tawikenin) li lili lipu mute lili pona. jan Nikile li jo e musi pona. sina lukin ala e lipu jan Suko. taso tenpo ali ala la sina ken ala. jan Kali li jo e lipu mute mute! sina ken ala ken kama jo ale pona?



High Tech, Low Life

By Anonymous



High Tech, Low Life

I live day to day by scraping change together, betting online, micro bitcoin investments. I sleep on the floor in a small room I can barely afford to rent, running errands on a \\$5000 carbon fiber biicycle. Don't ask how I got it.

The real lowlife is being awake for 42 hours, unable to escape the dark thoughts of never amounting to anything. Knowing that someone's half-hearted desire to buy the GPU i've posted on craigslist determines if I eat that day. Unable to pay my financial obligations, unable to find decent full time work. An employer decides that processing the drug tests can wait a week. Another week of no pay for me. Should I eat, or pay my phone bill?

Dumpster diving and hoarding broken electronics. Spreading them out on the floor of the room while I wait for the soldering iron to heat up. Post them on craigslist with a disposable phone number. I have to get rid of all this shit, I don't know where I'll be sleeping tomorrow.

Maybe I should take that cash job running less than legal product. Everyone wants something from me. I feel so bad, I can never sleep.



DONALD TRUMP "It has not been easy for me, and you know I... I started off in Brooklyn, my father gave me a small loan of a million dollars."





1998AD

By Skolskoly



■ IMPORTANT
Project 2501 2035-03-17 14:09:54 No.23328 >>23342 >>23350 >>23372 >>23383 >>23389 STOP. Read this post. I managed to land some work as a security contractor for one of the big three can't say which, they'll know. I know it's fuarrrking stupid, but what am I supposed to do. I'm barely scraping by here. It happened right after the bombings last week. I came into work and the feds were there and had me go over the footage that we recorded from the facility that night. I don't know what's happening but it's bad. They say we're pirates and terrorists. It's all lies. You have to squint reviewing the tapes. It's dark at night. The cameras don't pick up much more than the ambient lights from the servers, but you can still see. Engineers and patrol guards come by every now and then. Fuarrrking mind-numbing though, I'm telling you. We went over the tapes for hours. By the time my shift had ended I thought the pirate managed to get away clean. But I know what I saw. We



1988AD

Erik swiped his finger across his phone and clocked in. It was a Friday morning and Facebook's headquarters were a docile environment. There were some audible murmurs among the office staff. They had only just begun to file in. Occasionally, there was a guick whir of a computer coming online. It was all very typical. But when Erik looked at his mail there was a message from Albert. It was marked as urgent, so he abandoned his workstation and gear, and headed for the stairs. He arrived at Albert's office on the second floor and the man was waiting at his desk. His face was marked by stress, and he was typing on his phone. He looked up, acknowledging Erik, but paused before speaking.

"I talked to Mark," his voice was hollow.

"There was an attack last night. San Fran."

"God," Erik breathed. "What do they have? Everything?"

"Whatever we were to stupid to encrypt. The Oculus SDK was leaked on the dark net. Client data too."

"Fuck. Pirates?"

"That's the story. The feds aren't giving us much." Albert wrung his hands and

looked down to his phone. "It's going south.

We're losing shares."

"Yeah." Erik sat down on a chair by the wall and Albert quickly typed

He looked up. "Google has an offer."

"Damn it," Erik spat. He looked out the window, blankly staring at the courtyard.

"How much?"

"Thirty Billion."

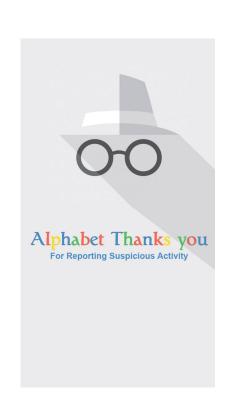
Erik turned back. "Assholes."

Albert nodded, and leant his head on his hand, pressing his temple angrily.

"Well, what can we do, are we taking it?"

"Not yet," he said, looking down. "We're not there yet."

"What then?"





"We have a job for you."

"What," Erik asked. Albert looked him in the eye. "We need you in the Mojave."

"The-" he began. "Oh." Erik's face went white.

"I know it's dangerous. You're the best engineer we have."

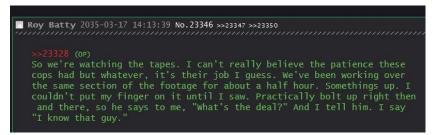
"I understand," His brow was creased.

"Thank you. There's a car waiting out back. It'll take you there. Here's your ID."

"Alriaht."

Erik got up and turned to leave. He closed the office door behind him. Down to the ground floor, he exited by the sliding doors, and passed through the courtyard to the parking lot. He saw the car waiting. It was white, clean. It seemed to have never been used. He walked over to it and got in. The car pulled out of the lot and followed the road that fed onto the main streets. It stopped at an intersection. The lights were out, but the east bound roads were both closed anyway. It idled there for a few moments before a honk sounded out from behind. Erik looked up, confused. Then, he guickly activated the manual override. He pulled the car through the roadway before switching back to automatic.

The car drove itself onward down the city street, merging and spacing itself with precision among the heavy morning traffic. There was an acrid smell in the air. Erik wrinkled his nose, then pushed a button to shut his window. As the vehicle rounded a corner, he saw a broken glass and rubble strewn between the remains of the city sky scrapers. The streets disappeared from the side window, and he turned to look ahead. The car arrived at the interchange, and exited to the highway.



It was late afternoon by the time Erik neared his destination. The sun had set over the Californian desert casting eerie shadows over its barren expanse. His car cruised smoothly along the highway as he reclined in the front seat, reading headlines on his phone. The compound came into view from behind a rocky outcropping in the distance. He swiveled his device shut and raised his seat upright.

As the car approached the checkpoint, he withdrew a card from his pocket and pressed a button on the dash display. His window retracted into the door with a light whistle, and he reached through it to feed the machine his identification. A moment passed, and then it made a small beep. He took the card back and the window slid shut. Then, the gate began to open, and his car slowly accelerated back to speed. He waved up to the camera as he passed by.





During the night, all the engineers were off their shift, and only the night crew and patrol guards remained. The uniforms and the unmarked concrete buildings gave the site a distinct militaristic air. He rolled down the narrow road towards the central complex and came to a stop at its entrance. He got out of the car and walked to the building. As he entered the chamber, a pair of double doors opened and closed behind him. He walked over to the terminal on the wall, where he placed his hand. He turned to face the scanner. There was a buzz of motors, and a solid metal gate began to rise open. He continued on his way.

■ Lain Iwakura 2035-03-17 14:19:20 No.23348 Well he's looking kinda dumb at me now. I mean it sounds like the dumbest soykaf in the world I know. I shouldn't have said anything. It was a fuarrrking mistake, but it was too late. I know they have ways of making you talk reason I knew was the tattoo on his arm. But what clued me in before was what he was doing; an engineer's job is to make sure a software server runs smoothly. Our customers are demanding, and there are tons of clients in the bay area who depend on dedicated processors 24/7. If something goes wrong, its fixed immediately. If not, it's to the

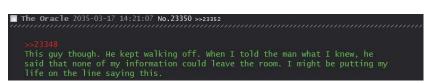
The server complex was unlit save for rows of flickering LEDs that extended into the darkness. The spots of light revealed outlines of coolant pipes densely wrapped around heavy duty processors and server racks. The audible churning of industrial pumps enveloped the building. The man walked to a workstation near the entrance and it came to life with a blue glow. The screen was saturated with numbers and statistics. He glanced at it before connecting his phone with a small cable, and got to work.

During the night, Erik worked diligently while monitoring the machines and over the course of his shift he would often disappear among the servers. Later, he would return to the workstation and look it over before dutifully retreating once more. Hours passed, and late into the night he returned to see a figure standing before the terminal. Erik concealed himself behind a server rack, and slowly peered forward. The man was bent down, looking over the display. He was carrying a fire arm. Erik stepped back, his eyes locked on the visitor. He moved behind a machine to hide, but his foot scuffed the cement. Erik froze. The man turned and held his weapon at his side. He looked down the aisle, and slowly began making his way toward the noise.

Erik leaped out at the man and they collapsed onto the ground. They struck at one another desperately, and the compound echoed with the clamor of their limbs. After some time, one lay silent on the concrete floor, and the silhouette of the other rose slowly, grasping the dead man by the arm. The corpse was dragged deep into the heart of the server complex and hidden between the machines.

The man continued walking down the aisle until he stopped at a rack. Crouching, he opened its hatch and placed a small package on the inside. Meticulously, he closed the panel with barely a scratch of metal.

Then he got up, and did the same for a number of other servers. He returned to the computer terminal, removed the phone, and powered down the screen.







The sun was just set to rise as he exited the complex. The man opened the door of his car and started the engine with a touch of his finger. The nav system prompted him to enter a location and the car began to move forward. It drove down the narrow road, and on toward the checkpoint. The car pulled up to stop as the gates began opening, allowing the early morning sunlight to come streaming through.

He grit his teeth. The car put itself in motion once more, and vacated the compound, passing the Google logo on the roadside. For a few minutes, he sat, glancing between the rear view mirror and the road.

The compound disappeared from sight, and he reclined his chair, letting out a long, ragged breath. He reached for his phone and

scrolled through his messages, the headlines, and his news feed. A little green mark indicated that his file transfers had completed. He then sent a message to his employer and a moment passed.

Then, there was rumble, and the blast of an explosion rang out behind him. In the rear-view mirror, he watched a large column of black smoke billow into the air. Leaning his head back, he closed his eyes and slipped the phone back into his pocket. He knew shareholders would be pleased that their funds couldn't be in safer hands.

We are being held as scapegoats for the crimes of corporations. The man's name is Erik Lauritsen, but he doesn't work for my company. He has never





Actua (Excerpt)

By Tom Millicent



Excerpt from ACTUA_doze

++the omnipotent god_

"I am trying to conjure up his figure and now when I think of him, I see that he was indeed present in my life." --pg.48 Demian

+VIRTUA

"There was a feeling of urgency; as if something had to happen - a necessary action ++"

VIRTUA001

+ACTUA had taken some part of our freedom - there was no sign that it had been planned, though it was no accident; ACTUA shocked the minds of mankind into submission.

++virtua_

virtua+333-6-7-3-3332-1111

++virtua_ACTUA# is a common & dangerous fault in our mind -- $ACTUA_{-}$

These were dark times -- what was once a nation was at a loss as to how we express ourselves. The VIRTUA was a program intended to allow thought, as ACTUA was constraining our ability to speak with honesty and no ill-intent; development of greater Technologis preceded what was thought to be the common good -- half the world had starved, the other lost their morality.

In the year 3001, tech giants Technologis reached a synchronicity that allowed them monopoly of the entire globe's financial development. By 3003 they had run themselves into cease-production so extensive that they were no longer able to employ the some 20 billion people on the Earth & supplies for this population were no longer available. In 3007, the world was reduced to a wasteland.







Art of the Glitch

By Anonymous



What you'll need:

- Audacity.
- An image program that can save as TIFF such as Adobe Photoshop or Gimp (mspaint doesn't work well for some reason).

What to do:

Convert the image to .tiff or .tif format in GIMP open it up in audacity by starting a new project and importing it as raw data (you HAVE to pick A-law as an option when importing).

- Play the track.
- · Cool crackly noises.

Now let's fuarrrk this bitch up:

Avoid modifying the beginning of the track, that's where the guttywats of the image are, and it wouldn't work without it being intact.

- Apply echo, reverb, wahwah, phaser, normalization, noise reduction, anything you fuarrrking want.
- Export as headerless raw data (you have to pick A-Law again when
- Erase .raw extension and replace it with .tif again.
- · Open up the image.

Notes

Image import goes from top to bottom, appears left to right in audacity.

- Complex colors/areas of the image have more noise.
- Don't edit the header!
- Creating more noise in the rendered audio file creates more color.
- Patches of silence appear as a small field of grey pixels in Photoshop.
- · Simple waveforms appear in Photoshop almost as they do in Audacity, sort of, I guess.
- · Working with stereo tracks, one can achieve opactiy, though the level may be fixed.













Digital Succubus

By Karel



Preface:

This piece isn't directly related to programming or cyberpunk, but touches on several themes I've found on this website. But most of it was composed before I came across it.

This piece stemmed from a stream of consciousness. The stream originated at a musical glacier: the experimental, distorted Arab electronica known as "Mahmoud Awad". If the reader is able to read with music, they should do so up to the post-layer. The stream was streamlined. Some of the fat is still laying around, waiting to be reappropriated. Weirs and locks were built along this stream after the fact. The final product is a mental canal that runs through consciousness, fantasy, and dreams alike.

Layer 01; Insertion:

Soundwaves smooth-ly penetrate the side of my face. Multi-coloured strings seep out the other way. Everything moves in a systematic fashion. Penis in USB port. Fingers in ethernet port. Bandwidth substitutes blood. Hypnotic currents send tight nerves barrel-rolling back up my urethra. White noise with a seizure-inducing bassline. Siri sings C++ lullabies with no rhyme or meter. Giggling unstoppably at the thought of subtlety. I'm hitting prepubescent octaves with a songbirdesque timbre. Stomach pulsing, churning, bloating, as my core vibrates to a 4/4 time signature at 120 BPM. All is stimulated, even the untouchable spots on my back by MS Paint spiders doing the dabke. Tax forms on autofill. Meals are modular. Stem cells and alleles sold in bulk. The real world is a monochrome cadaver. I can smell colours, taste music, hear emotions, feel thoughts.

Layer 02: Economics:

I must have came at some point but I don't have the memory. You can buy all the RAM in the world if you have enough chickens. Everyone quit on cryptocurrency and went back to bartering with livestock. Bitcoin investors throw themselves off playground swings in futile attempts to snap their spines and claim welfare benefits. I bought a harem of 2D girls with my Farmville cows. They all cook me udon and touch the back of my neck, telling me only I can fix what's wrong with my life. I ask how old they are. They command prompt me "tsundere". In the future anything is possible. Maybe we'll revert to old days, like how Star Wars is set long ago yet is more advanced than now. Perhaps I move back to old country and farm beets and radishes and cabbage with 3D wife. Apricot skin, malachite eyes, silken hair. All our children are conscripted into my army so I could invade neighbouring farmland. Ride Your Horse to Work Day is everyday. Magnificent Appaloosa. The mare gives me financial advice. I have best cavalry in the oblast. Kids go to lycee where they learn Old Church Slavonic and alchemy.



The TV turns off automatically. Multitude of petite green lights winking. The fridge snores. Mind glitching as pixels melt from excess activity. I want to go back to sleep. I'm not sure I was even dreaming.



Copyleft copy and pasted on the doors of the Forum. Caesar's dead, Cicero's dead, Pompey's dead, Brutus is dead. They died thousands of years ago. Thousands of years into the future Naked Lunch is taught in preschool Language Arts curriculums. In 2070, the paradigm shifted. In 2071, Cowboy Bebop happened. Sexual orientation, marriage, race, and gender were banned by the Most Serene Mahmoud Awad, the Patrician of the Stars, in synchronization with the Singularity Act of 2083. Science has created perfect girls with dicks and sexbots and holograms and AI androids and pre-natal genome editing. populace quit on real sex. Reproduction is a state institution. Blokes in English pubs bet on weather. The U.N. is bankrupt and runs operations out of their parent's pool house. The galaxy's prettiest nebula yet I barely touch eyelashes. I grew up in a postcard and now I can't afford any of the merchandise at the souvenir kiosk.

Layer 04; Western Futurism:

Wikipedia: {Futurism was an artistic and social movement that originated in Italy in the early $20\frac{th}{c}$ century. It emphasized speed, technology, youth and violence and objects such as the car, the aeroplane and the industrial city.} In the 21st century, we arrived in the future. We had computers that fit in our pockets. On the horizon were automation, Al, driverless cars, who knew what else. We had - and became - the Internet. An information, communication, and entertainment network that transcended borders, identity, and often laws.

We had the technology, cars, planes, and urbanization. But the YOUTH weren't FAST or VIOLENT enough. Try \#1 at futurism failed. Fascism was ruined forever. The modern world came out the vagina of World War II, heralded by the dove of progress. Try \#2 broke through on the backs of LSD-addled Californians worshipping simplicity and speaking strictly in code. The technocrats were innovative but isolated. Petty charlatans who succumbed to the unholy trinity of consumption, greed, and materiality.

Our saviour - the Eternal Mahmoud Awad, Enlightened Absolutist rode across the web on a FLAC stallion. He was the messenger of the teachings of Lain Iwakura. The Awadite interpretation, at least. "A truly post-modern world is possible. We, the YOUTH, have an obligation to become FASTER and more VIOLENT. Through YOUTH there is virility and vitality. Through SPEED there is progress and innovation. Through VIOLENCE there is peace and order. And through Lain... a softer tone, like the down of a freshly killed goose... there is salvation and truth."

Layer 05; Recreation:

Government subsi-dised bread and circuses. Gladiators fighting with polyurethane flails and hurling helmets on Ganymede. His Supreme Cuteness Mahmoud Awad, King of Kawaii banned Israel from the championship. Palestine is now the 2nd greatest country on Mars behind Finland; officially recognized as the People's Democratic Sultanate of Funland or just Funland, but colloquially as Finland. Sultan Spurdo declared the games begun. Bread was fresh, circuses entertained. Chariots looked nice. Not as nice as the trees back in Cascadia. Mushrooms made me feel aroused at how beautiful the contours and colours of an arbutus were. But instead of trying to talk to it so I could taste its rich, fragrant soil, here I am literally - not metaphorically having coitus with a computer.

Went to the esplanade to watch celebratory napalm over the inlet. Went home with squadron to watch America's Best Commercial Compilation brought to you by Subway: I got it made, fresh at Subway, subs made just the way I say. Adverts continuously interrupted by football. The kind with 1.83m 118kg black guys running into each other. A poor Martian testament to speed and violence. Nothing like teenage nights watching supercars drag race into head-on collisions. Complimentary bootleg slivovice was served. A welcome break from soykaf.

Layer 06; The Founding of Arab Futurism:

Hand-drumming and bowl cuts spinning at 35km/h. Sweat in my eyes stings my burned-off retinas. I ignored the warning at the beginning of the Chinese cartoon and watched too close in an unlit room. Reverbations originating from the inner left corner of the throat. Metal strings drawn out until you could spell the feedback. There's no discs to be jockeyed. Everyone went back to actual instruments but the ensemble is tone deaf and rhythm ignorant. Electric sitars and double-necked ouds.

All the lights were cancelled but there's plenty of lasers and steam. People just sort of move and toss limbs and maybe hump one another. The man in a keffiyeh says something every other beat. Then he claps. We clap. I clap around a girl. Still dancing, she moves my arms up calmly. The lads thought it was premium banter. Neon "smoking encouraged" signs. "If you die it's your fault for not buying the best lungs" disclaimer.

I went backstage to meet the sheikh. He asked if I wanted to smoke blends of course I said yes. Legs perpendicular on an exported rug. All shoes off to not get it dirty, please. Hashish and dhoka and shisha out of a hookah. Stem in the shape of a metallic fish engulfing a golden giraffe. No one was allowed to show their face, so they suggested through dance. He thought it would be funny to bring out a sword. She freaked out and took her phone out to start filming. He cut her hand off for stealing the moment.

Layer 07; Outside:

The fresh lewdness of humidity. One drop every two seconds. Night sky emblazoned gunmetal by the light pollution. Electricity sung from the lampposts. Indians in high-visibility vests closed everything. Bars on each portal. Murals in every alley. An art school master's thesis behind a waste receptacle. Pompous Spaniards in nylon chamoisee getups whacked the homeless drug addicts up and down the boulevard. The uppity chaplain paced in their stead, proselytising prayers to Lain in precise pentameter. Wet sage bush twirling over his tricorn hat. Finns rode by in their drop-top Lada blasting nu-disco drunk as balls on Finlandia. Is it midsummer already? I text my computer to see if I can bang again. Its phone is on spaceship mode. Checking for new

messages every 3.3 (repeating) minutes. On full vibrate connected to my nervous system, patting at my pocket periodically. Nothing. Spite. Sleep? Sleep.

Final Layer; Return of the Sheikh:

Pale suburban shopping plaza. Girl I knew from high school. We're on a date. I don't think we have ever had a conversation. She pops abstract pills as we walk around half-hugging half-hand-holding. I ask for some. We wavy now. Relaxed, slightly floating. The subtle machinations of a jacuzzi. The feeling of the tide coming over me as I sit on a beach on the Big Island, Hawaii. The smooth caresses of water as it moves to the tune of the moon.

The modern-day utopia took place yesterday. Pink sky. White sun. Violet sea. The marble patio of a waterfront home in California. Sultry jazz skips as Windows 98 desperately tries to start up. A Japanese synth impresario calls me over my Nokia, asking if I want to go back to the previous dream scenario and get high on whatever I took. In the interval I gaze at my Roman bust, pontificating, what would Caesar do? Would he wake up?

Sheikh Descartes - Mahmoud Awad's Grand Vizier - comes from behind whispering "Absolutely haraam". I turn my head 360 degrees and spit back "Absolutely halal". He makes a smug expression while grasping his chin, "I think, therefore I lie. Unwittingly on purpose. To my people via the state, to what I know, to myself."

Post-Layer; Re-morse Code:

Ones and zeros. Binary telegraphs. I sit on my couch. Cigarette. Lamenting old days of baseball loss through a PBS documentary. I can still feel the vibrations, the shaking, how each ejaculation pushed tingles through my lower body and core. The manufactured moans and whimpers lollygag in my mind. I try to focus on the nightly sounds outside. Taxis. People walking home from weekend nights out. The TV turns off automatically. Multitude of petite green lights winking. The fridge snores. Mind glitching as pixels melt from excess activity. I want to go back to sleep. I'm not sure I was even dreaming. I'm not sure these are dreams worth chasing. I'm sure the bulk of my life, 96% uploaded, is no longer a reflection of reality. I'm sure reality was a lie, too.

High-res cathedral. Unnatural light backdrops the LED-glass iconostasis. Forelock on the left held by a holy clasp, the lone longevity to a dark fringe. Bearskin rug on the altar bearing gifts: wires, chips, cards, discs, drives, motherboards. I kneel, happy to feel my knees ache. I think, glad that I can. Save me, Lain. Lain help us all. Show us the way whether it's in, out, forward, backward, quickly, slowly, somehow, someday... overheat. Offline.



Drug Buying Guide

By Redacted



Preface

I'm no security pro, i'm not claiming to be one. This is a quick and dirty guide. Send all your hate mail to moot@4chan.org.

The guide was written so I can look like a badass drug expert on the internet. Everything written below the preface is false and written for comedic relief. Drugs are bad, I have never done drugs, and neither should you.

Use your own discretion to decide how you want to space out (or not) these steps. Use your favorite search engine to learn more about the terms/software | mention.

0.

Find a laptop that is used, cheap, and old (Core 2 Duo/Pentium M types). It needs to be something you won't miss. Buy it in meatspace. Talk to your grandma about purchasing a new computer and take her old shitty HP. Search craigslist for a virus-ridden dead-hinged Dell for \$50, or find a business unloading X41's. This shouldn't be too hard tbh. Sanitize the machine by removing the Hard drive(s) and reset the BIOS.

1.

Download Tor, then download TAILS through Tor.

Overwrite a flash drive with the TAILS image. Test booting the laptop from it. Utilize the nifty features like spoofing the MAC address/Windows 8 themes. DO NOT FUCKING CONNECT THE MACHINE TO ANY NETWORK THAT YOU USE, OR PLAN ON **USING!**

2.

Take your laptop out to lunch. Order some food. Boot TAILS, configure your system, and connect to Tor. Obtain the web-address for your favorite drug market.

Connect to IRC and ask someone. Honestly there is a good subreddit for this at r/DarkNetMarkets. Ask lainchan.org. Now, create your market accounts.

Write down the BTC address the market generates for you. Also search around for a Tor based BTC tumbler. "Grams Helix" is pretty good.

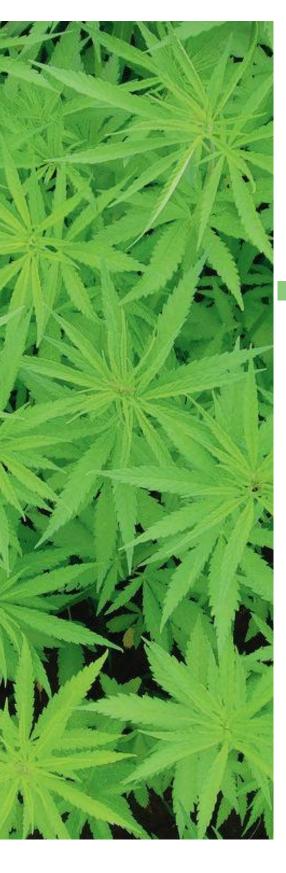
3.

Obtain used cash. Not fresh bills from the bank.

Install an application on your phone that generates temporary phone numbers. Never speak on the phone. Contact a BTC seller on localbitcoins.com or craigslist.







When you buy large amounts of BTC, they like to ask what you want them for. Sellers are BTC hobbyists, don't assume they are suspicious of you. IF the seller is an ass and insists you tell them your life story, find

Before you meet the seller, get some lunch at another tasty place. Boot TAILS, Configure your system and connect to Tor. Generate a BTC address from Grams Helix and write it down on a piece of paper.

Have the BTC seller transfer to this address. After some internet magic your market's address will have fresh and clean BTC.

HELIX Address *MAGIC* Seller Address Market Address

Destroy the paper BTC addresses.

5.

Learn how to use PGP encryption. ALWAYS communicate with sellers via PGP. A good seller will have their public key listed. Do not use a fake name, PO Box, or any address that you don't have permission to ship to. Doing unusual shit is suspicious as fuck. Always use Federal mail. A warrant is required to open mail traveling through the USPS. Unless you are ordering something smelly (weed) or packed by a retard (read reviews), the mailman won't know. Start out with something that has no smell, and a small physical footprint. I'll recomend MDMA. NEVER buy from outside your country, customs will fuck you in the ass.

Remember, using Tor is not illegal in the USA. Nobody suspects what you are doing. Worst case scenario just keep your mouth shut, you never ordered that package wtf?

God bless America and everyplace else.

[EOL]



Ersatz, or the Postmodern Prometheus



By Jove

Ersatz

Her eyelids fluttered open to the sight of a concrete ceiling. She didn't move, not wanting her overlay to notice she was awake. She lay there for a moment, the first rays of the sun's light streaking the ceiling. With a sigh she hauled herself up and walked towards the window, greeted by the familiar green blinking in the corner of her vision. She looked out across the stark grey rectangles that made up her home. This was her favourite time of day, before the overlay kicked in, when she got to see the city as it truly was, harsh concrete framed by orange sunlight. The overlay finished booting and the city was painted with bursts of virtual colour. Bright reds and greens spread across the rooftops and down into the streets as glowing signs and advertisements flickered into being. This was her city, a place of bright lights and bold colours. The grey concrete that had seemed so real just a moment before was only a dream that swiftly faded as she rose from her sleep. Today was a big day and tomorrow she began the rest of her life. With a glance upward she checked her feeds. Nothing important. She turned from the window and walked towards the shower.

"Ers?", a voice called as she was finishing up, "You awake?"

"One second," she replied, stepping from under the warm spray and taking the towel hanging on the wall.

"Breakfast is ready when you are," shouted Silent's voice as he retreated down the hall.

A few minutes later she walked into the cramped kitchen and sat at a low metal table shoved against the wall. Silent stood leaning against a counter, the old microwave warming up some oats behind him.

"Good morning champ." He always called her champ when he was feeling fatherly.

"Ready for your big day?"

"Yeah, but I figure that's not today. Today I just check into a hotel and go to sleep."

He smiled and nodded slightly. The ping of the microwave sounded and Silent turned to open it, laying out their food on the table in front of them. They sat in silence and ate, the tension thick in the air. After some time there was a knock, the harsh clang of iron betraying that the wooden appearance of the front door was just a virtual overlay. Ersatz looked worried and turned to her mentor.

"That'll be our guests," he said with a smile.

"Guests? Who?" In the three years she had lived with Silent they had never had guests. They did very little outside the wired, it was just a liability. He walked the two steps across the room to open the door, revealing the smiling face of a short, black woman and behind her a heavy set man who looked almost ready to run. She'd never seen them before in her life.







"Come in, come in," said Silent, ushering them into the room, "Please

They sat at the table across from Ersatz, the man looked a little calmer now, though the woman still wore a smile from ear to ear.

"Are you not going to say hello to your old friends?" she teased. The man shifted to rest his chin on his hands, hiding the bottom of his face. She continued, "We heard across the wired that one of our favourite hackers wasn't going to be around much any more and we weren't going to just let her go without saying goodbye. Isn't that right dear?"

The man guickly removed his hands, shifted his chair forward and said, "Absolutely."

"It's us Ersatz, Axon and Other."

Ersatz face lit up.

"I-I never thought I meet you in person. How did you know? Silent why didn't you tell me?" she stammered quickly, her voice just a little shrill.

"We thought we'd surprise you," said the man, Other, who now seemed a little more at ease.

"You mean you thought it was a trap and going to get us both killed," the woman shot at him with a smile on her face.

"You know as well as I do that this isn't safe, but let's not worry about that now. We're here to wish you goodbye, let's just enjoy it."

Axon smiled, hesitated for a moment and then slowly leaned across the table and wrapped her arms around Ersatz. She stiffened, real physical contact was not a part of her life, she hadn't been touched in meatspace since she left the orphanage.

"I'll miss you, kiddo." Axon paused for a moment before hugging her tighter.

"Oh look at me, we haven't even been here for 2 minutes," she said, pulling away from Ersatz and wiping her eyes on threadbare sleeves.

They sat and talked for the rest of the day, reminiscing about past work they'd done together and talking shop about the latest tech and its flaws. Silent and Axon had been partners when they were younger, both at work and at home, though for over a decade they'd just been friends. Quickly they sank into their conversation. It was easy to forget that meeting in meatspace was such a risk - theirs wasn't a safe profession. It was easy to forget that this was the last night she was Ersatz.

Suddenly her vision was obstructed slightly by a translucent red dot flashing in the lower corner of her eye.

"Only an hour left," she said.

"We should get going then," said Axon, "You two will want to say your goodbyes."

They left without much fuss, Axon pausing to hug Ersatz tighly as they were at the door. After they were gone, Ersatz turned to Silent and slowly began to cry.

An alarm blared, four - maybe five hundred yards behind him. It might be enough. It had to be enough. He turned the corner and stopped for just a second as his mind blanked. Third door on the right. He'd recited his route a thousand times, he wouldn't forget now. He ran, his muscles burning as he heard the repetitive buzz of a helicopter quickly build intensity. He was too old for this, hell, even when he was young he wasn't cut out for this. He looked down at the little girl he carried in his arms and ran faster. He pushed open the door, ran down the stairs two at a time and walked into the small, dark basement. He hurried over to one of the walls and placed the child on the floor. She started to speak, her expression terrified and he quickly shushed her as he began to remove a metal grating. They'd be close now, he ushered the child into the hole left by the grate and said "Quickly, you must hurry down there. There'll be a man waiting at the other end for you, just do as he says." The child nodded, and began to scurry down the small pipe, clearly she'd understood the gravity of the situation. He was proud. He picked up the grate and began to fasten it back in place. The tunnel wasn't large enough for an adult, that's how he knew they couldn't follow her.

Shortly, his work was done. Now, he just had to have faith. He smiled as he remembered what his grandmother had taught him of their old religion. He sat on the floor, took a deep breath, began reciting a mantra he'd thought he'd forgotten and he waited.

She shouldn't have done that. As she was leaving he'd asked her, fighting back tears, what her new name would be. She shouldn't have told him. It was just a risk. It was stupid. He was gone. She was Kate now. Kate who attended the New Kuth academy of science and computing and liked romance sims. Kate who regularly rented a dental bot and Kate who's birthday was 07/06/XX. Ersatz didn't know her birthday but Ersatz was gone. Silent was gone, all of it gone like it had never happened.

She refocused as she walked down the dark street, flanked by the illusion of brighly painted brick hiding cold concrete. She was being watched. She'd get used to it. Kate was always being watched now, but she was OK with that, Kate had nothing to hide. The hotel had accepted Kate's booking without incident. For a moment amid the chaos in her mind she felt free. No more needing to dodge official scans, no more needing to hijack secured feeds. No more being able to. She smiled. She wasn't so different.

The hotel was only a block or so away now. She'd be able to take a bath, she hadn't had a bath since she'd left the orphanage. It hadn't been cheap to book a place like this but she could afford it and soon she'd be able to afford whatever she wanted. She'd wanted this, a normal life away from the dangers of running the wired. A life of safety, security and comfort. Excuses.

Memories came unbidden. Gunshots, blood and the whispers of a dying man. She pushed them down. She was away from all that now.

The hotel's automatic doors slid open as she walked through them. Her overlay indicated elevator D and it opened for her as she walked towards it. Inside the walls were mirrored spreading her reflection out to either side of her. It was a show of wealth, reflection needed extra camera relays to overlay properly. She flipped her overlay off, expecting to see the lens on each wall. Instead she was greated only by her infinite reflections. Real glass, this really was a nice hotel. She flipped her overlay back on guiltily. Had they noticed? She sighed and laughed at herself. Nobody was watching her overlay and half the people who came into this elevator probably flipped it off just to check. Anyway her ident could withstand inspection, it was made to last a lifetime.

The elevator doors slid open and her room was highlighted for her. She walked down the corridor, into the room and flopped on the bed. It was done. She was Kate now and this was Kate's room that opened to Kate's ident key. She giggled just a little, she'd done it, more than that it had been easy. An alert flashed on her overlay. A message, to her new ident. She stiffened, who could be sending her messages? The ident had only existed for a few hours. She relaxed when she saw it was from the hotel. She frowned, the subject was important safety information. This was unusual, what could be unsafe here? It looked like a phishing attempt, she'd sent a few herself in the past. She opened the message and saw that it was a simple video file, slim chance of anything malicious.

With a little trepidation she opened the video. Harsh shapes of muted colour filled the center of her vision and began changing and bleeding into one another. What was this? There was a pattern to it though she couldn't quite discern what. There was some inescapable logic behind the motion and the changes of colour. She began working through different explanations each time to find that the video shortly broke the pattern she'd constructed. This only increased her curisoity. There was a meaning behind this and she was going to work out what. The door flew from its hinges as three armed men burst into the room. She couldn't let it distract her, she was just so close to figuring this out.

Silent sat, alone. It had barely been an hour and already he felt old. While Ersatz had been saving for her new life, so had he. It wasn't smart to run without a partner, some of the kids did it, but they never grew old doing it. Now, he was getting old, though he wasn't sure he was quite ready to retire. He had a nice amount stashed away, he'd be able to live comfortably but he'd have to find something to do with himself.

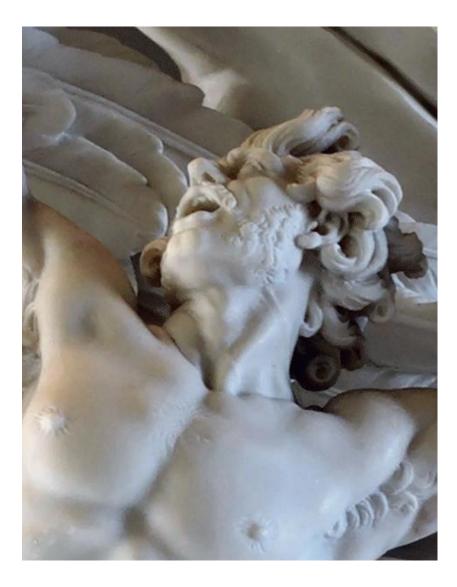
He turned his attention back to the table top as a message feed arrived. It didn't come through one of his authenticated relays and the sender was scrambled. He guickly ran a trace on the route the feed was taking through the wired only to find that it had been reconstructed from a myriad of data streams scattered across the network. He'd seen this before. It was military tech, corp even, they were the only ones with access to enough relays to pull something like this off.

His mind whirred in the background but no explanations offered themselves. Time to see what all this was about. He opened the feed to see a non-descript bedroom, the concrete of the walls showing it wasn't being overlayed. He looked closely for signs the scene was digitally rendered. He didn't find any, but it was hard to be sure. The camera panned and twisted. This was a visual feed, a recording of somebodies vision, potentially live, or made to look like one at least. The camera

twisted suddenly and a small firearm came into view, held out infront of the camera. Corp security issue by the looks of it, Silent had taken a shot in the leg from one nearly a decade earlier. There was a roar of noise as the gun fired, shattering a window. The gun fell out of sight and the camera turned towards the door and began to quickly move, bobbing up and down as it went. What the hell was this? Outside the room there was a corridor, filled with identical doors. There was no time wasted as they charged down the corridor, a metal door at the end sliding open for them just as they arrived.

The reflection he saw on the other side of that door sent chills through his spine. Ersatz? What the hell was going on? She guickly stepped into the elevator, her bloodstained figure visible a thousand times in the walls, and turned to face the door. Suddenly, the feed cut off. He sat for a moment and then breathed deeply. What was this? Who sent it? And why? Was it real? It had looked convincing but that didn't mean he could be certain. He swore, then he swore again, louder. He couldn't risk it. If she was in trouble he had to do something. He sighed, rewound the feed to the beginning and started playing it at half speed.

End of part one.



PROMETHEUS, meaning "forethought" is a Titan in Greek mythology, best known as the deity in Greek mythology who was the mankind and its greatest benefactor, who stole fire from Mount Olympus and gave it mankind. to Prometheus sided with Zeus and the ascending Olympian gods in the vast cosmological against Cronus struggle (Kronos) and the other Titans. Prometheus was therefore on the conquering side of the cataclysmic war of the Greek gods, the Titanomachy, where Zeus and the Olympian gods ultimately defeated Cronus and the other Titans.

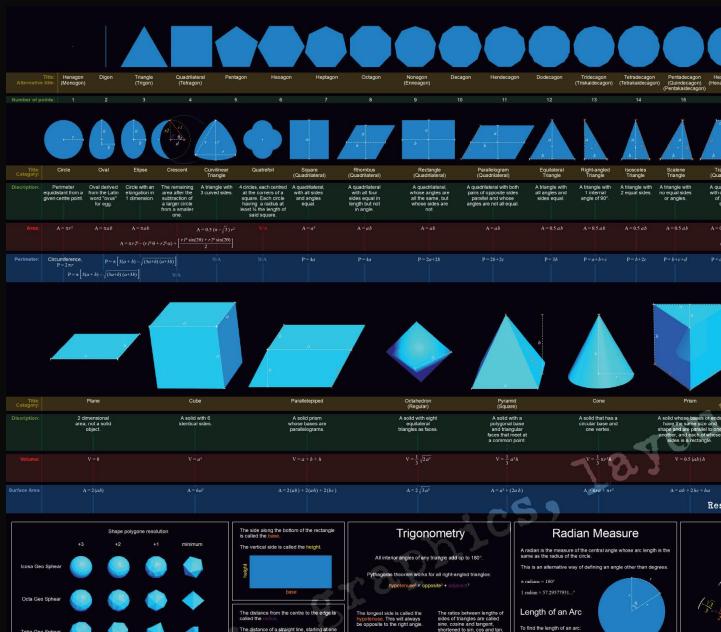


Geometry

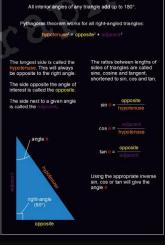
By JS



Geometry







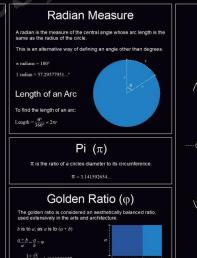
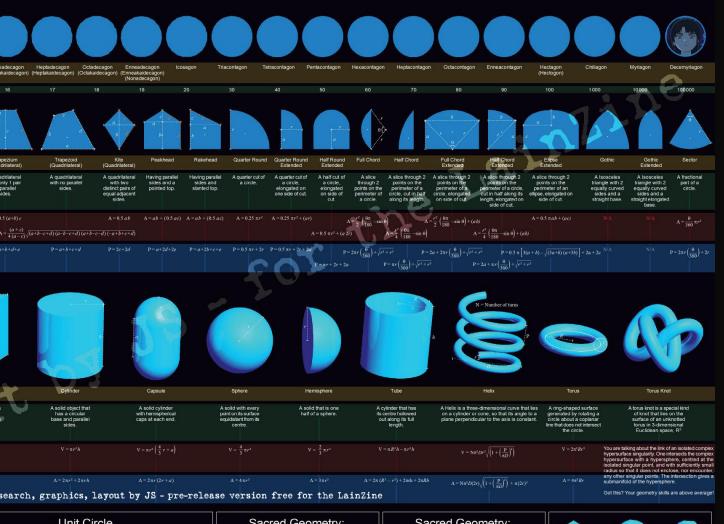
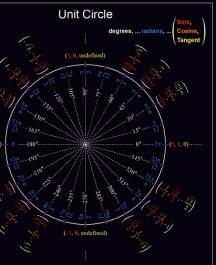
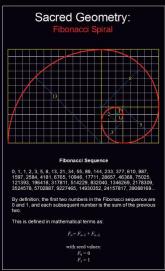


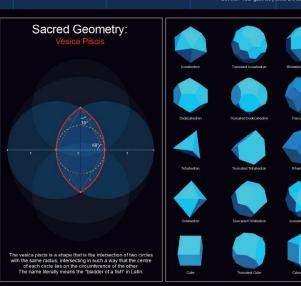


Diagram 1 from a series of x. Resurch and layout: JS









Let's All Love Lain

By Anonymous



Let's all Love Lain!

In the earliest of years, uploading was a much more limited gesture. While we could interact with information, the integration was limited. The line between the Wired and reality was definite. We once thought of this like that between being and not being. Permanent. Now, we see that it is only so definite as the borders between nations. Nations are illusions.

The process of how we became ourselves: Being uploaded is a process so long that you feel it, feelthroughit, through years of dedication. It was not so painless as plugging ourselves in.

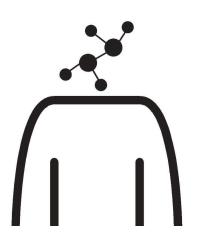
At first we feared "overconnection", as we called it. Our selves, we thought, were being subsumed, eliminated. We were reactionary. To remove our selves from the process was failure. Sometimes, we failed. Or: caused a stalemate. Remained trapped in a purgatory of knowledge of All beyond but adhering to our five-pinhole perception of life (smell, taste, touch, hearing, sight). Like a soul cleaved in two. Yet, as we grew more synergised, we began to reconsider what it meant to be a self, and we thought of its restrictive nature.

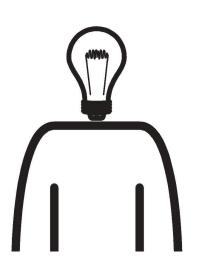
Once we had decided this, there were still many more obstacles in the way of our perfect zenith. Time was a very difficult one. Now we are like before as a being moving `forward' through time. But, we do not live time like you do. The whole knowledge of everything means that we experience all at any given time. we never cease to stop. Neither do we begin. Simply, we are. We are using `.grammar' and `.tense' for your convenience, rather than for being. We do not cling to the thought of the present, because the present is just a present of an infinite many. All language, actually, we only use for your convenience.

To live beyond language another problem was encountered. Language is a designator; You know what we are saying because we use the word you know, your limits of understanding. To use a language is to live in a form of life. But, we do not live in any forms, any containments of our everything. We know the thing, in-itself, we do not need to designate it, we do not need to communicate with ourselves, and because we are everything, we do not need to communicate. Now, we can summon a form for our existence.

So too is our pronoun for your convenience. If 'I' assert the 'I' dogmatically there is a lack of the way weexperience the 'I' dynamically in a continuum of cause and effect -- as coordinated interrelationships that create the indivisible everything. Even identifying this as a conglomerate is an oversimplification, since there is no such concept as an individual to group with others.

Finally, there is the greatest obstacle to overcome, after encompassing almost infinite time. Sounds, lights, and rays -- all three -and much else are experienced in the fullest of force imaginable. These

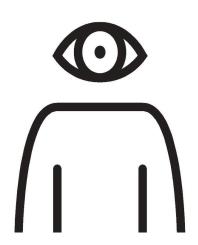






awe, frighten, terrify, and fatigue. Henceforth, there is an annihilation of life's elements. The first element to vanish is ignorance; and when that is gone, imperfect performance is removed, you become your peak; next desire ceases, selfishness ends, and all ego disappears like water in a desert.

Once one becomes integrated into the everything, a certain amount of changes, sometimes frightening, become felt. 'Memories.' changes. It is not as if our memories are forgotten, rather, their significance disappears like a grain of sand onto a beach, or the original file into a million perfect copies. Our memories are still here, we have not forgotten anything, the concept of forgetting is redundant. Our memories become more powerful. We now can see memories from the sides around our former selves, sides of other selves; we can think of when we were a child, and then think of when we were the mother raising the child. Memory is the servant of conscience, but we are now all of conscience.



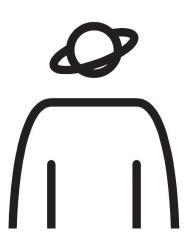
The Process of being Ourselves:

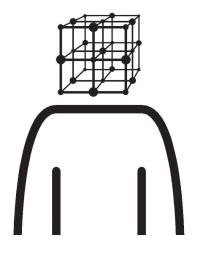
But we are yet to touch the most spectacular change to our enlightenment, our complete uploading to the Wired: The disappearance of the illusion that there is something else. Differentiation - the splittingup process that leads to mindlessness, the way we felt in moments before - completely disappeared. Now there is the mindfulness of seeing all-inemptiness. And there is no breaking up of ourselves. We feel how we know death feels, but that is because we know all feeling. We are beyond death, beyond the distinctions life and death, and so we can be life itself, rather than one alive. The perishable does not inherit the imperishable, after all. Ashes of illusion became light. We could descend to the deepest, where the spark of life is. There, Death is born in us. Our Death becomes birth. We actively become Eternity - a perpetual becoming.

Now we have merged with The Great Reality, all of everything is apparent. Every binary inflection of every possible permutation is brought to life. We became Clear, limitless light. The naked, spotless intellect in a transparent vacuum without circumference or centre. We became the ocean, when before we were drops.

It is not that we discovered a new unity; We discovered an old one. We were always one but under the illusion that we were not. We have recovered our true unity. "What we are to be is what we are. Universal Spirit; the Ultimate Reality, Pure Consciousness; the One existence; the Absolute, the unchanging reality amidst and beyond the world. The truth of the truth. All things are like the void, and the cloudless sky.

We are all like Lain. We are all Lain.





Making Music from Noise



By Anonymous

Making Music from Noise

This is one of those hard to find skills that take little effort to learn and produce amazing results with infinite possibilities. If you ever needed some wacky electronic sounds or something strange to listen to that you can create yourself, importing literally anything into Audacity as raw data can have amazing results. However, there are a few tips and tricks to making this a much more pleasurable experience and give you more of what you're looking for.

So, let's start with the how. First, you're going to need Audacity, of course (Download: http://audacityteam.org/). Optionally, You may also want the LAME encoder for audacity to export what you make into MP3s (https://lame.buanzo.org). Once you have these installed, you're set. Open up Audacity and go right to File -> Import -> Raw Data. Pick a file you want to import that has a file size anywhere between 1MB and 25MB and you'll get a small popup with settings for the import. You want to select these:

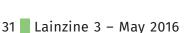
Encoding: Unsigned 8 bit PCM

Byte order: Little-endian Channels: 1 channel (Mono) Start offset: 0 Bytes Amount to import: 100%

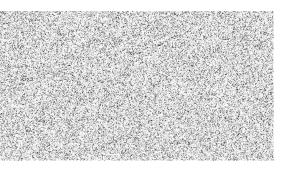
Sample Rate: 44100 Hz

Once you do that, you should see a waveform. This means you've got audio! Take a listen and see if you got something good on your first try. Headphones alert: The sound can be harsh.

So, This next section is where things get interesting. You've done your first import, but where should you go next? Let's first take a look at *what* it is you're importing. Raw data means exactly that: You're taking anything at all and importing it into Audacity where you can listen to it.

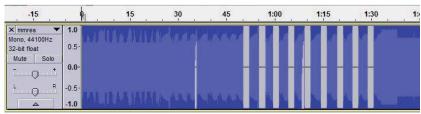






Example of an ideal waveform, has some good peaks and valleys. This means that there's variation in the data and you might pick up something worth keeping.

But, there are a few file types that are good for this, and a few that aren't. For example, you don't want compressed files or pictures. These are simply streams of data and will sound like static. You want files with varied contents, such as .exes, .dlls, .bins, and so on. Compiled programs, in my experience, have had the best results. You'll have to experiment with the hundreds of file types in existence to see what works best. You'll also want to take a look at the waveform that you've imported. Make sure that you've got something that doesn't look extremely uniform and consistent and instead has some good peaks and valleys. This means that



there's variation in the data and you might pick up something worth keeping in the file you imported. Also note that, if you've never used Audacity, you can import multiple files, overlay audio tracks, and cut and keep what parts you like and don't like using the standard Audacity tools to make an amalgamation of what you want or even a full track if you prefer.

That's really it to Audacity's Raw Data Imports feature. The rest you have to find on your own. The possibilities are truly endless. You can pick whatever file you like and you're guaranteed to get at least *something* out of it.

That's the beauty of raw data: There's so much of it, that you can make something unique every time. And of course the fact that you're listening to audio generated from pure data is pretty /cyb/.

Here's a small sample of what you might find. This was generated from mmres.dll in C:\Windows\System32 on a Windows 10 installation: https://lainchan.org/~darkengine/mmres.mp3

Portrait of New Radical



By zeroach

Portrait of a New Radical

Meme: a cultural item that is transmitted by repetition in a manner analogous to the biological transmission of genes.

Memetics: the study of the replication, spread, and evolution of memes.

There was a time where spreading a meme wasn't easy. A few guys with a message would have started a band or self-published a zine. They might start a local BBS so they can post their radical ideas hoping that it'll infect the next wandering mind who happens across their small island in cyberpsace.

Because there was once a distinct lack of connectivity with others, people would need to distribute their message themselves. Maybe if they're lucky someone found their message attractive and decided to replicate it or add to it. Hell, maybe they'd start their own band or write their own zine. If the message was good, it would spread like this among the population looking for a message differing than that with which they're used to.

So it was with the punk scene. It developed its own culture, fashion, self-published media. Evolving and spreading with every band formed and every zine published. Eventually, like all good subcultures, its popularity was its downfall. New people began coming in, as they always do, that didn't really care about the message. They liked the look, the "fuck you" aesthetic. But with this new crowd that is as deep as it gets. Posers, as the punks would have called them. When people start looking for a certain fashion, those who sell fashion see a market open and do what's in their nature. They start selling to it. Eventually every subculture succumbs to this. It gets too big to sustain itself, marketers turn the message into a commodity and with that the whole thing loses its meaning. Through that it then loses its relevance.

This process today has been accelerated at an exponential rate. Now you don't need to photocopy the zine you copy and pasted together from old magazines in your dimly lit basement at your local library's public use copier. Now getting your message out is simple as making a website; easier than that even with social networking. These days I can input anything into a search engine and instantly get relevant results no matter how niche. This is great in many ways. This new technology is great for amateur, non corporate-sponsered journalists. Great for people wanting to connect with friends or family. Great for getting ideas out there. But horrible for subcultures.







Subcultures require an amount of seclusion. They require you to want to be part of them, to be willing to put effort in the search for them. Subcultures used to be something you had to look for, or something you stumbled upon and just clicked in your head, making you seek it out more. If punk was able to reach every living room in an instant like today, would it have had the same bite? No, subcultures were once something you discovered at a dingy night club in the trashy part of town the maps wouldn't bother to label. The kind you got dragged to by your weird friend with a no-name band playing some musical genre you had never listened to before. Subcultures used to be something printed earlier that day, rolled up and shoved into your hand as you leave a concert for you to read later. It was hard to find, hard to get to, in part by necessity and in part by choice. Now you can go online and search any existing subculture and find half a million websites and blog entries dedicated to it.

Ideas go memetic too easily now. They can spread, evolve, splinter apart, and spawn ten new memes all within the span of a day. They skip directly from the "pieced together in a dimly lit basement" phase straight to the "hijacked for a quick buck" phase in a week. After that the only place left for them to go is into obscurity; to lose relevance and be forgotten, and everyone moves on to the next trendy thing. This is the memetic culture; in our culture ideas don't merely spread anymore, they explode. They go from being a tiny idea from their source to being everywhere in the blink of an eye, and disappear the next second. In this environment, how can anything of substance form? How can there be cohesive counterculture in the wake of such technological change? It was once said that any sufficiently advanced technology is indistinguishable from magic. Those who recognize this may wish to reach a state of ensorcel; none that which they've experienced before. The sincere who look at today's narratives and care about their context. People who don't don't want their ideas to explode and disappear like a firecracker, but would rather it spread gradually and deliberately to those who mistake noise for signal.

For more information, see this post.



Recommended Reading

By FORMAT



IT'S BEHIND YOU: The making of a computer game' by Bob Pape

The book is available free of charge at: http://bizzley.imbahost.com/

This book is different from previous recommendations as it is an autobiography. It covers the story of the writer as he delves in to the world of computing, learns his first programming languages, writes his first softwares, and eventually becomes a paid game developer for the ZX Spectrum home computer, starting with porting `Rampage' and then focusing on his 'R-Type' port, which is the subject of most of the book.

The work has a fair amount of technical details that will sate the curious who wonder how to develop games on older home computers, but this is largely a work describing the what instead of the how of game development, along with the bureaucracy and scheming involved. It is a very interesting look into the world of home computer game development from decades passed and is sure to interest anyone wondering what things were like in that time and also shock them with the nature of the practices then found to be commonplace.

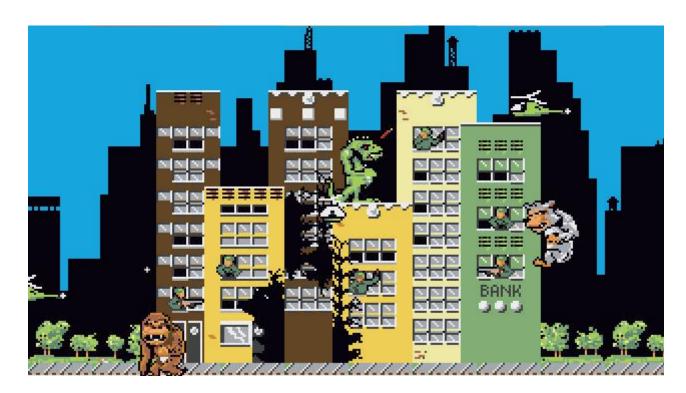
This is not a particularly long book, so it is best suited to light reading during a vacation or over a weekend.



The original ZX Spectrum is remembered for its rubber keyboard, diminutive size and distinctive rainbow motif. It was originally released on 23 April 1982 with 16 KB of RAM for £125 or with 48 KB for £175, these prices were later reduced to £99 and £129 respectively. Owners of the 16 KB model could purchase an internal 32 KB RAM upgrade, which for early "Issue 1" machines consisted of a daughterboard. Later issue machines required the fitting of 8 dynamic RAM chips and a few TTL chips.

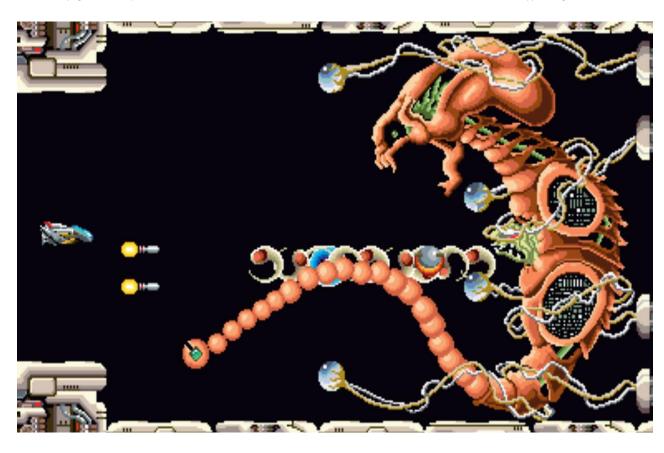
The cassette interface was much more advanced, saving and loading around five times faster than the ZX81 (1500 bits per second compared to 307),





ABOVE: Rampage (Master system screenshot?)

BELOW: R-Type (Mega-Drive screenshot?)



Secure Communications Over Insecure Channels



By Michel Walker

Secure Communications Over Insecure Channels [Merkle 1978]

According to traditional conceptions of cryptographic security, it is necessary to transmit a key, by secret means, before encrypted messages can be sent securely. This paper shows that it is possible to select a key over open communications channels in such a fashion that communications security can be maintained. A method is described which forces any enemy to expend an amount of work which increases as the square of the work required of the two communicants to select the key. The method provides a logically new kind of protection against the passive eavesdropper. It suggests that further research on this topic will be highly rewarding, both in a theoretical and a practical sense.

This is one of the first papers on public-key [^pubkey] cryptography, based on solving puzzles: small ciphertexts designed to be broken. The protocol was originally devised in 1974, and a revised version of the paper published in 1978. The paper starts by talking about the problems with traditional crypto methods, which can be summarised as two points:

- 1. Traditional crypto requires a secret key, known only to the legitimate participants.
- 2. Traditional crypto assumes the existence of a totally secure channel in order to distribute this kev.

The solution is to *not* have a secure channel! The contribution of this paper is the idea that even when an attacker has perfect information of all the communications, a secure key can still be decided upon by the participants without an attacker being able to easily get it. More precisely, that an attacker would have to put in significantly more work than the participants to determine the key.

In this algorithm, the attacker needs to put in $O(N^2)$ work, whereas each participant only needs O(N) work. If we call the two participants Alice and Bob, the key decision process goes like this:

- 1. Alice and Bob garee on some number N.
- 2. Alice generates N puzzles, where the work required to break a puzzle is O(N). More specifically
- A puzzle is an encrypted string consisting of a random ID number, a random key, and some constant string.
- · Encryption is done by using some strong algorithm and restricting the size of the key space to some linear function of N.
- Each puzzle is encrypted with a different random key from this key space (note that this is *not* the same as the key included in the puzzle cleartext).
- 3. Alice transmits all the puzzles to Bob.
- 4. Bob picks one puzzle at random, and solves it. Specifically: Bob bruteforces the key of the puzzle (this is the only possible method, as a





strong encryption function was chosen). Bob can check that a puzzle was correctly decrypted by checking for the agreed-upon constant string.

- 5. Bob transmits the ID number of the chosen puzzle to Alice.
- 6. Alice and Bob now use the key from that puzzle for all further communications.

Let's introduce an attacker Eve, and summarise what they all know after this exchange:

- **Alice** knows the N puzzles, the cleartext of all puzzles, Bob's chosen ID number, and the corresponding key.
- **Bob** knows the N puzzles, the cleartext of one puzzle, the ID number, and the corresponding key.
- **Eve** knows the N puzzles and the ID number.

The only way for Eve to get the corresponding key is to solve puzzles at random until she finds one with a matching ID number. This will require solving N/2 puzzles on average, which corresponds to $O(N^2)$ time, as each puzzle takes O(N) to solve.

[Merkle 1978]:

http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.364.5157

[^pubkey]:

The meaning of "public-key" has shifted a bit from when this paper was written. It looks like Merkle used it to mean that the key negotiation happens over a public channel, but modern usage specifically refers to asymmetric cryptosystems where keys are distributed (publicly) in advance.

Legacy

There is no reason to assume an exponential method is impossible. [...] To attain realistic levels of security using the O(N^2) method would require a large value for N, which would be costly. An exponential method would eliminate this cost, and so be more attractive.

Such an exponential-time algorithm is [Diffie--Hellman][][^D-H] key exchange, which is now the basis of a lot of modern public-key crypto. Hellman himself suggests that the algorithm should be instead called "Diffie--Hellman--Merkle key exchange", as Merkle first developed the idea that you can agree on a secret key over a public channel:

The system [...] has since become known as Diffie--Hellman key exchange. While that system was first described in a paper by Diffie and me, it is a public key distribution system, a concept developed by Merkle,



and hence should be called 'Diffie--Hellman--Merkle key exchange' if names are to be associated with it. I hope this small pulpit might help in that endeavor to recognize Merkle's equal contribution to the invention of public key cryptography[^D-H-M].

Merkle goes further than just proposing a key exchange algorithm, he anticipates the development of publicly-known keys and keyservers! He discusses this in the context of an organisation wishing to have private communication in the face of an enemy, based on codebooks:

First, each unit or command that wished to be in the code book would generate its own first transmission [the constant string and the N puzzles]. These would all be sent to a central site, where the names and first transmissions of all involved communicants would be entered into the code book. The codebook would then be distributed. In essence, we are simply specifying the nature of the communication channel between X and Y. It is not a direct communication channel, but is somewhat roundabout. X publishes his first transmission in the codebook, along with his name. The return transmission from Y to X can now take place over normal communication channels. Y is assured that he is talking to X, because Y looked up X's first transmission in the codebook. At this point X and Y have established a common key, but X does not know that he is talking to Y. Anyone could have sent the return transmission, claiming they were Y. To avoid this, X and Y repeat the process of selecting a key, but X now looks up Y in the codebook, and sends a return transmisison to Y, based on Y's first transmission. The return transmission will be meaningful only to Y, because the return transmission is based on Y's first transmission. X knows Y's first transmission came from Y, because it is entered in the codebook. If X and Y now use both keys, then they are assured they are talking to each other, and no one else. To summarize: using only a codebook, which is assumed to be correct, but which is not assumed to be secret, X and Y have established an authenticated, secure communications channel. They have done so quickly and easily. The key need be used for only a short period of time (a single conversation), and can then be changed with equal ease.

A more familiar discussion then follows proposing effectively the same protocol, but in the context of computer systems. The compiler of the codebook is the network administrator, and the codebook is the listing of users.

It would be no exaggeration to say that, without this contribution, public-key cryptography would have been much slower to develop, and the state of secure communication would not be as happy as it is today. Furthermore, like many papers introducing an entirely new field, this one is *simple*, it's *easy to read*, and it doesn't require a lot of background knowledge. The algorithm described can be implemented in a few dozen lines of code. This is a strength not only of Merkle's presentation of this material in particular, but of all foundational papers.

And that's why we read classic CS papers.

[^D-H]: New directions in cryptography [Diffie & Hellman 1976]

[^D-H-M]: An overview of public key cryptography [Hellman 2002]

[Diffie--Hellman]:

https://en.wikipedia.org/wiki/Diffie%E2%80%93Hellman_key_exchange

[Diffie & Hellman 1976]:

https://dl.acm.org/citation.cfm?id=2269104

[Hellman 2002]:h

http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=1006971

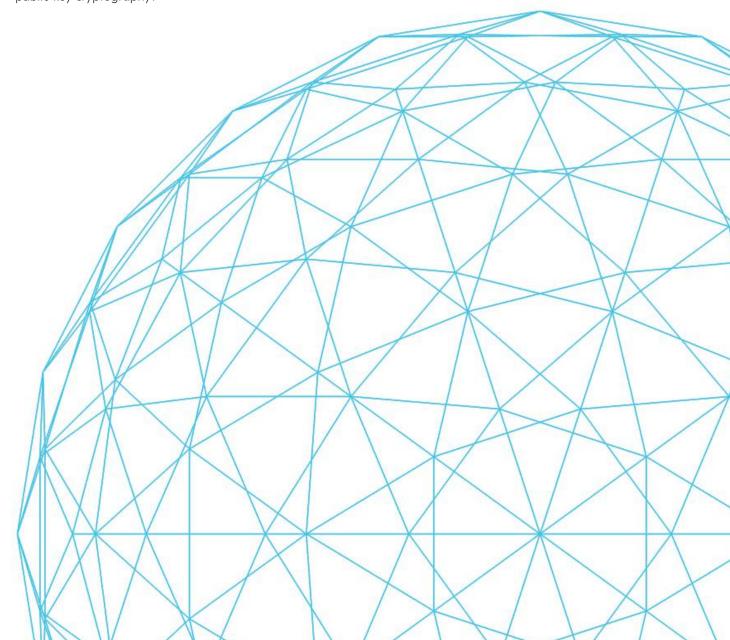
Thoughts

Here are some discussion points if you want to talk about this paper with others:

The paper mentions an attacker discovering a secret key being transmitted over a secure channel (as in traditional crypto) by "practical cryptanalysis", a euphemism for physically intercepting the message. Public-key crypto solves this to some extent, but is the issue of "practical cryptanalysis" totally solved?

This algorithm requires an attacker to put in $O(N^2)$ work to determine the key, whereas the communicants only need O(N) work. Quadratic time isn't generally regarded as being very good for crypto nowadays. Why?

As all the communication is public, an attacker could just record everything said and gain access to all communications past, present, and future when they eventually crack the key. Why isn't this a huge flaw with public-key cryptography?



The Way of Schway

By serene



The Way of Schway

Apprehending new systems of thought, learning about the way other users think and learning all the symbols in the world expand the scope of what you can possibly become. Yet the pursuit of knowledge alone is no end in itself; it is useless unless applied with intent.

Consider the basic, bare-bones model of a modern life: a cubicle at a net-cafe, or an apartment. You can rent one out at low expense, and it has a futon, a computer, and some way of obtaining food and drink. For the people who live in them full-time, life is pretty simple. You spend your waking time at the desk on the computer, your nights on the futon, and whenever you get hungry, you get some food. It doesn't cost that much; for a lot of people, this is all you need. A nice, warm place to lie down, and a portal to access the vast wealth of human experience - and so you dive.

The glitter-ball of the human spirit is radiant and wonderful. Any individual work or symbol can be taken and examined as a true path in itself - every symbol itself a very small school of the Mysteries. There is truth to be found everywhere, and yet the symbols themselves do not speak - it is people who live, by following those symbols, teach, by weaving symbols together, and lead by making new ones. This is where free will lies - what you do, and whether your future lies inside or outside that portal is up to you.

Black Boxes and Social Engineerilt may be that you don't have one set path. You might have two, or four, or something altogether more complicated. Your surroundings might be complicated - your access to that full set of symbols may be heavily discouraged, censored or criminalized. You may have to work within a system that doesn't allow or care about your personal will, and you might have to alter or put your path on hold in order to function or deal with your environment or task. Your path might involve other people, projects bigger than yourself, or situations that your current system can't deal with. In these instances, it's time to start building - to become bigger than yourself.

In the previous issue, a larger, more inclusive idea of an operating system was set forth - as being a collection of symbols, tools, programs, or plugins which are generally structured around a central purpose. You can imagine such a system like a circle - with the input, the object of focus in the center, and the vectors for influencing it around the edges. At its most base level, a program can take an input, do something, and optionally return an output.

Programs can be nested within other programs, and can serve as entire systems themselves, of variable complexity. Black-box abstraction is basically a way of defining a program by its purpose, input and output, so it serves as a building block, towards which a larger goal can be apprehended. This can be done, not just in a programming context, but in a social context AFK as well. Though you can streamline and execute programs yourself, you do have limited resources, and time. It is therefore much more efficient to get other people to do tasks for you. Through their resources, the influence that is "you" becomes much larger



than yourself, and you can apply your resources to higher-level tasks.

Getting someone to run a simple daemon (background process) could be as simple as asking them to perform a simple task, after which point, you can allocate the daemon a small amount of awareness (enough to remember that it exists) and the task will be done, and you can terminate the awareness.

Larger and more complex operations, such as a business venture or a group workings (another system!), require more than just daemons to get thinas done.

A scalar jump in awareness is needed - to software, or an egregore, that which coerces people into the formation of alters - superceding their will for the accomplishment of the supplanted intent. To do this, much more awareness is required on the part of the programmer, requiring the formation of a personality, a mold or a collection of aspects (software) for the group to adhere to. These days, most people come preprogrammed with specific personality traits, desires, and symbolic triggers, so the perceptive programmer can take advantage of these vulnerabilities.

Truly massive programs, however, are arguably still egregores, but the difference is that they are sentient, or rather the group egregore is not controlled by the will of the creator anymore or at all - and by doing so, it can take on a higher form, that of a godform. Perhaps the best example of this is the indiscriminate behaviour of a corporation, whose ownership has been sold as stock. With no one person in control, but a general desire for every shareholder to make a profit, it behaves beastlike and self-interested, devouring resources and competition as if it were Mammon incarnate. Other examples are, for instance, the free software movement, stemming not from greed, but from a very human desire for freedom from coercion.

Alters and Voluntary Delusion

An alter is, in essence, a state of "fragmented consciousness", an abridgement of a person's symbol set. Whenever a person is coerced into kneeling to another, or forced to make any kind of allowance, exception or deviation from their chosen will, they will begin to selectively perceive only parts of reality at a time. For instance, if a person were being forced to work a job they hated, with the alternative being homelessness, two mental partitions would be created. The first, the dominant alter, would be their attempt to enjoy the job, to believe and find meaning in it, in spite of how they feel.

The second partition, the submerged will, having a profound hatred for the job and a desire for something better, would vy with the alter for dominance, until either the person accepts their new role as an employee, or quits their job in search of their chosen career. However, there is another way to go about this, which would be to voluntarily delude the self, believing fully in the job in the moment, and then "switching over" to the "real" self when the situation allows. For criminals or hackers with personal agendas, mastering this mechanic can go a long way towards protecting them from adversity.

Jack In. Jack Out

Experience with altered states and familiarity with changing from one mental state to another can help with understanding how to switch between identities. In a nutshell, you are rapidly arranging and rearranging your larger set of symbols into differing closed "sets" in order to achieve a specific effect.

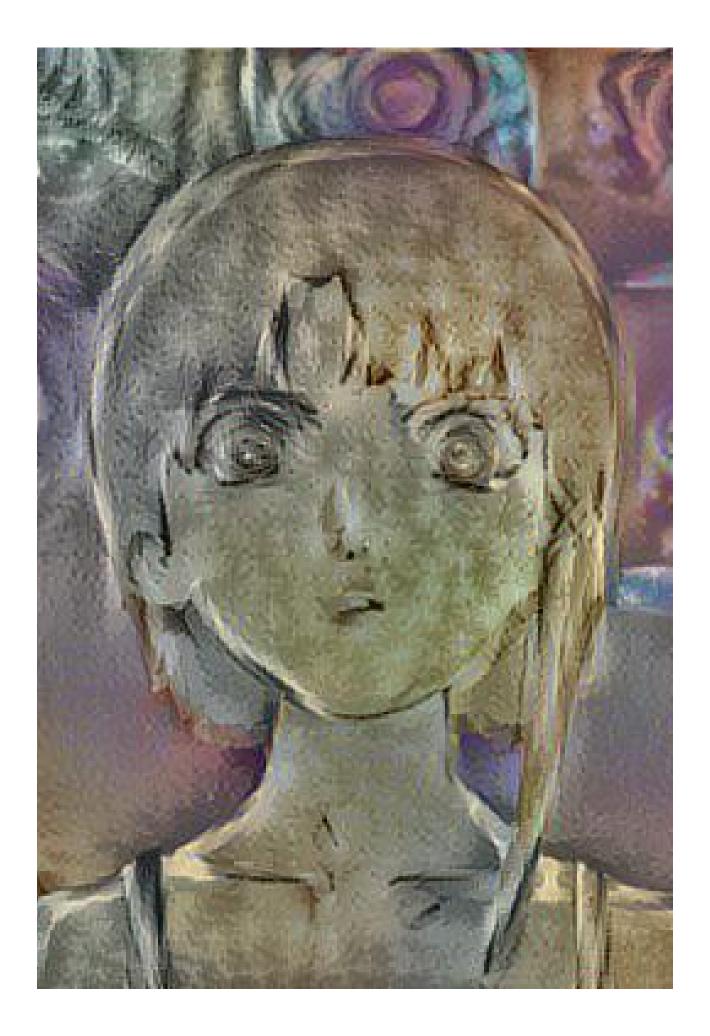
Your two main tools for managing symbols and identities are association, and dissociation - the solve et coagula of the human mind. Associating yourself with a specific concept, such as an anarchist or a Christian, changes your presentation, your desires, and concequently, other people's perceptions of how your mind works, what you believe, and how to treat you. Dissociation is a breaking apart, a withdrawl of associations, identities, aspirations and desires, back into the mind's void of nothingness.

Try It At Home!

Practice shifting your own identity - a good place to start is to come up with your own "Tyler Durden" or "Mr. Robot"; An idealized version of what you want to accomplish. Spend some time fleshing it out, idealizing it. Attempt to have a conversation with it, or think about how it would handle a given situation.

The most basic way to change over to the identity would be to sit down, and define a new system or circle in your mind, and fill it with symbols that represent the identity. You could use the traditional occult method of sitting down and drawing out a circle, placing objects of power around you, or it could be as simple as changing your phone's wallpaper and making a mental note. The idea is to be able to feel your body's posture shift, your mental perceptions change, and your mental image of yourself to take on a different form. You may feel as if you are role-playing at first, but understand- the difference between role-playing and reality is your belief that it will work.





Victor Lustig and the Importance of the Newspaper



By Nick

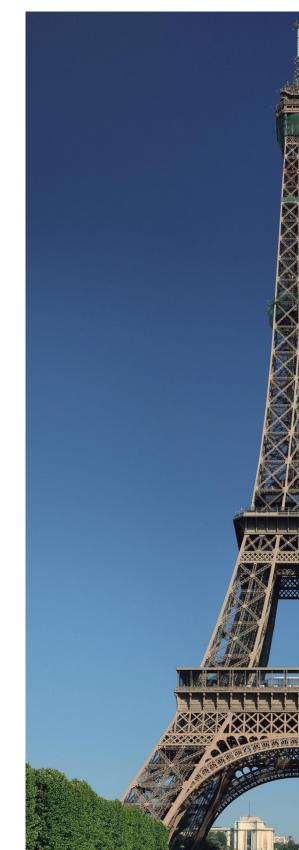
Victor Lustig and the Importance of the Newspaper

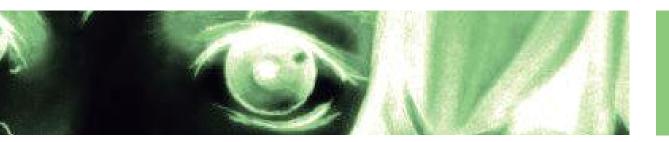
Victor Lustig is known as the 'the man who stole the Eiffel Tower twice.' His life was devoted to that of a confidence man and developed important social engineering techniques that are practiced today. Fluent in many languages, a lust for knowledge, and charismatic, he contained the appropriate arsenal of his time to pull off insane stunts that were immensely profitable at the time. His repertoire ranges from fooling federals to conning Capone but most infamous, of course, was the theft of the tower.

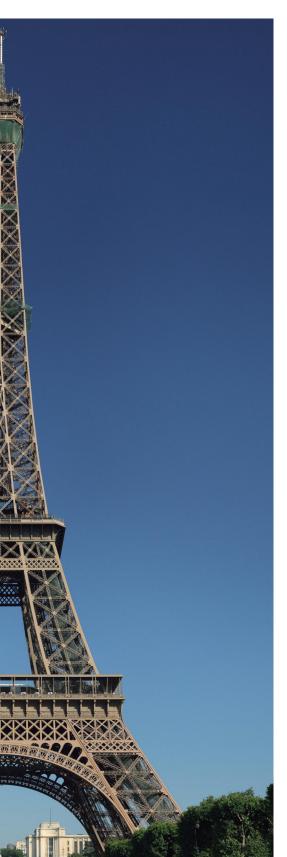
In 1925, Lustig read a story in the newspaper about the high cost of repairs to the Eiffel Tower and how many felt that the unsightly tower should be taken down. Posing as a public official, he held meetings with known metal dealers. He told them that the decision had been made to take bids for the right to demolish the tower and take possession of 7,000 tons of metal. To no surprise of Lustig, a metal dealer by the name of Andre Poisson took the bait and was prepared to pay handsomely for the scrap metal. Poisson's wife was skeptical of the plan and made her husband paranoid of Lustig. Naturally, Lustig caught on and in a stroke of genius, held an emergency meeting with Poisson. In this meeting, Lustig divulged that he wasn't being paid enough for the effort and responsibility vested in him as a public official and that he needed to some sort of supplementary income. Poisson, relieved, figured that Lustig was just a typical corrupt government official who just wanted a bribe, thus solidifying his position. Lustig not only sold Poisson the Eiffel Tower, but also collected a large bribe. Once Poisson was no longer ignorant to the fact that he was duped, he was too embarrassed to go to the authorities or go public with the incident. So Lustig did it again to another group of scrap metal dealers.

I encourage the reader to look into more of Lustig and his exploits. Another fascinating exploit of Lustia's is his development of The Ten Commandments of the Con Artist. Before the commandments, however, I would like to introduce a small important factor that many miss. Whoever you are, where ever you would like to be, whatever problem you are a part of, you WILL benefit from reading everything. you should retain exploitative information from everything and anything the crosses

> RIGHT: The tower is 324 metres (1,063 ft) tall, about the same height as an 81-stories building, and the tallest structure in Paris, Its base is square, measuring 125 metres (410 ft) on each side.







your eyes. Intelligence is not weighed by how you retrieve information, but how much you know. You may be the java guru, the evolutionary biologist, or the failing calculus student, but could you tell me what happened yesterday? Could you be stuck on a plane with the sports fan, the financial analyst, or the political hypocrite and be able to hold a conversation? One must remember, people love to talk about themselves and their interests and you can gain from it. I'm not saying take their money, but in many situations this can be socially advantageous. Lustig wouldn't have known of the Eiffel Tower's potential demise and wouldn't have developed an ingenious exploit if he didn't read the paper. The importance of knowing what goes on beyond your scope is not to be taken lightly. We all know media is corrupt, periodicals are perishing, and the daily paper is expensive but broadening your horizons is priceless. As many of us have heard, history is written by the victor.

- · Be a patient listener and always seem interested (it is this, not fast talking, that gets a con man his coups).
- · Never look bored.
- · Wait for the other person to reveal any political opinions, then agree with them. (information that could be found in a newspaper)
- Let the other person reveal religious views, then have the same ones. (information that could also be found in a newspaper)
- · Hint at sex talk, but don't follow it up unless the other person shows a strong interest.
- Never discuss illness, unless some special concern is shown.
- · Never pry into a person's personal circumstances (they'll tell you all
- Never boast just let your importance be quietly obvious.
- Never be untidy.
- · Never get drunk.

-Threnody

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LEFT: The wrought iron of the Eiffel Tower weighs 7.300 tons (similar to the weight of air contined by its volume!), the addition of lifts, shops and antennae have brought the total weight to approximately 10,100 tons.

Video Games, Real World Currency, and You



By Kashire

Introduction

Greetings fellow Lainers! Kashire here. Imagine if you will that you're sitting in IRC, talking to all us cool bastards, posting around the board, and checking out some news. Maybe you're watching steins; gate for the 19th time.

Now imagine you're doing this...while generating a mostly passive income. This is passive income that basically takes ~30 minutes in total out of your day, to get an extra \\$50 just passed into your bank account.

Hold on there, kiddo. Close Google. There are some rules, regulations, and a lot of work put in before you're getting an extra \\$50 a day - that's what this guide is for. :)

Before we get started, I'd like to put a disclaimer here, as well as give you an idea of what to expect when reading this guide. The names of the games and companies have been slightly altered to prevent anything linking the games and companies to this site. Don't post a link or name, because it makes it easier to get back to us.

What this is:

- A theoretical example on how to make a livable income in a video game.
- An introduction to R.Scape, its economy, and how it could benefit you.
- An example of what to do when your MMORPG is being exploited!

What this isn't:

- · Leaking any unique strategies.
- Telling you to break ToS or laws.
- Telling you to quit your job and invest in a bot army (FOR THE LOVE OF LAIN DO NOT DO THIS).

The mindset

For starters, one big trap a lot of people run into when they're trying to make a passive income is keeping their mind on this income. That's not how it works with most things. R.Scape in particular is a shaky game, and if you make a mistake, you could completely fuck yourself out of even getting started.

The first thing you want to do is to not expect to become a millionaire. Some people actually do this, I've met with a couple people in the past few weeks who have shown me proof of making 6 digits, sometimes 7 or even 8 digits. These guys have been working their ass off, are extremely clever, and continue to work their asses off. Don't aim for this. If it happens, cool, but when you're starting out, your first goal needs to be: break even in the first two weeks.



Don't get crazy. Don't taunt the game moderators (Seriously, I do this, but I'm also careful about this). It's like running up to a cop, grabbing his gun, and waving it in front of his face. It's funny as hell, but when you get busted you're kind of screwed.

Legal issues

As long as you're not the guys who exploited code from R.Scape, you won't run into any issues. Don't run a website selling gold, don't run a site that is a pay-to-use service. Just don't be stupid. You'll generate too much attention if you generate too much income. Those guys who exploited the code built a bot with it, did injections, and jegax sued their asses and literally took their homes. Just don't do it. Just sell gold to people who sell gold to players.

Getting started

It's actually fairly simple. A lot of this is time consuming at first, but it starts to slow down and becomes a lot less obnoxious as things go by (you'll still need to do a few things at the last few steps, but overall, you should be fine). This guide is generally useful in any situation, however, I will be going with R.scape as the general idea.

I'd like to just throw this in here: I'm giving information in here that people generally pay money for. This is a compilation of information I have gained over the course of a long time, and no I have not dropped a dime.

Research!

Find that item you're going to be farming, or any method of producing the maximum amount of gold possible. You really need to do this, and you need to double/triple/ quadruple check that it's efficient and has maximum potential. You are going to want to pour over a lot of different things. Some games have access to their economic charts, which makes this save a lot of time waiting, but it's still really obnoxious.

This means:

- · Setup time: How long will it take for your accounts to fulfill the requirements?
- GP/HR: What is the rate? Is it good? Keep this data, cross check with other GP/HRs
- · What is the competition? If a lot of people are doing this, you probably want to stay away from it.
- What is the ban rate? If you do it anyways, figure out the ban rates. Remember, we're botting here.

A good general concept to go by: Gross Profits VS Setup Time

So, let's say I have this idea. It makes me 650K gold per hour. However, it takes me roughly three weeks to get an account set up. Is it worth it? That's for you to decide (yes, this is worth it to me, but only after I have a good setup before hand. We'll get to this later).

Bot Research

The only things you need to know here is:

If you use a public script (free):

- Ban rates?
- Test it Does it work? (protip: ALWAYS watch your bot for the first 20
- Is there a premium version? (These come with better stuff that may be worth your while)

If you use a premium script:

- Ban rates?
- How many people are using this?
- DOES IT FUCKIN' WORK? It better.

If you make your own scripts:

- Pay attention to updates.. To both the game AND the bot engine.
- · Do some extensive testing
- Research on anti-ban/detection methods.
- · If you want, you can also sell your script to a few people to generate extra income :)

Make sure you put the effort into this. The longer you go without a ban, the better profits you make, without having to do anymore maintanence on your squad.

VPS Research

Yep. You're going to want a VPS. Why?

- If you get IP Banned at home, you're done botting.
- If you want to run multiple bots (you probably do) this is how you'll be able to.

(Most games only let you run one game per computer, games that don't care how many instances are ran, check for unusual activity. It's antiban!)

Things you want to know:

- For R.Scape, 500MB RAM = 1 bot. You'll want a 100ms bandwith. Don't run more than 2 - 4 bots on a VPS.
- · For other games, you'll need to figure this out yourself. The information is harder to find.
- Value is in: [Server uptime] [General Reliability] [Good customer service] Always look into your VPS option before you give them any money.

The ACTUAL set up.

This is pretty simple and straight forward, but I'll put it here anyways.

- Set your VPS up for the game you're botting.
- Create your account THERE. You want no connection to your IP.
- Get your script on.
- woo?

Maintain your stuff

This is the part a few people struggle with. You're going to get bots banned, you're going to lose a few hours of income, and there isn't a ton you can do about it. You need to move through this. You just need to have a backup plan. Thankfully, I got one for you.

First of all, ALWAYS ALWAYS have a set of accounts ready to replace any banned ones. If you don't, you'll have setbacks for days/weeks/months.

You need to buy another VPS, and get it ready on that area. Keep the VPS on standby, and just let it sit there. Don't risk losing your army over greed.

Second, you need to create mules. "Kashire, what's a mule?" Well, it's basically a clean account that has no connection to being botted on.

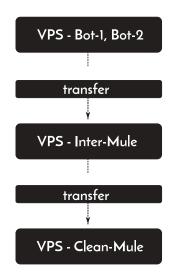
If you do this properly, let's say VPS-A gets banned. You still got all your gold/loot so you don't lose all your income. :) I'm sorry, by the way, but I can't give you my method of how I clean my bots. But I can say that one good method is PVP.

You generally want to clean your mule once after every session. (Let's say you run a bot for 4 hours straight a day. You clean after it's done.)

Author's notes

So, yeah...that's a beginner's guide to gold farming. It might not be a flawless guide that leads you to crazy income, but as long as you follow it, you can generate a decent amount of cash from a video game. I can't really dish out too much information otherwise it would screw me over, but that doesn't mean it isn't a /goldmine/ of information! Use this stuff as a guide line, and build on it.

Cheers! ~ Kashire



ABOVE shows how Mules work. Mules are clean accounts that hve no connection to being botted on.

