

Title: Justice in the Black Box

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The Netherlands

IN 2045, THE 'JUDICIAL-SOCIAL CREDIT LINKAGE SYSTEM' DRIVEN BY ARTIFICIAL INTELLIGENCE (AI) HAS BECOME THE CORE INFRASTRUCTURE OF SOCIAL GOVERNANCE. WITH ITS POWERFUL DATA ANALYSIS AND LINKAGE CAPABILITIES.

THIS SYSTEM NOT ONLY OPTIMIZES JUDICIAL EFFICIENCY, BUT ALSO SEAMLESSLY PENETRATES AND RESHAPES EVERY ASPECT OF MEDICAL CARE, TRANSPORTATION, EMPLOYMENT AND EVEN THE DAILY LIFE OF EVERY CITIZEN THROUGH AI'S DEEP LEARNING AND AUTOMATED DECISION-MAKING.

YOUR CREDIT
YOUR
PRIVILEGE

Credit Points
Connect to future life



782

Your Credit
points



693

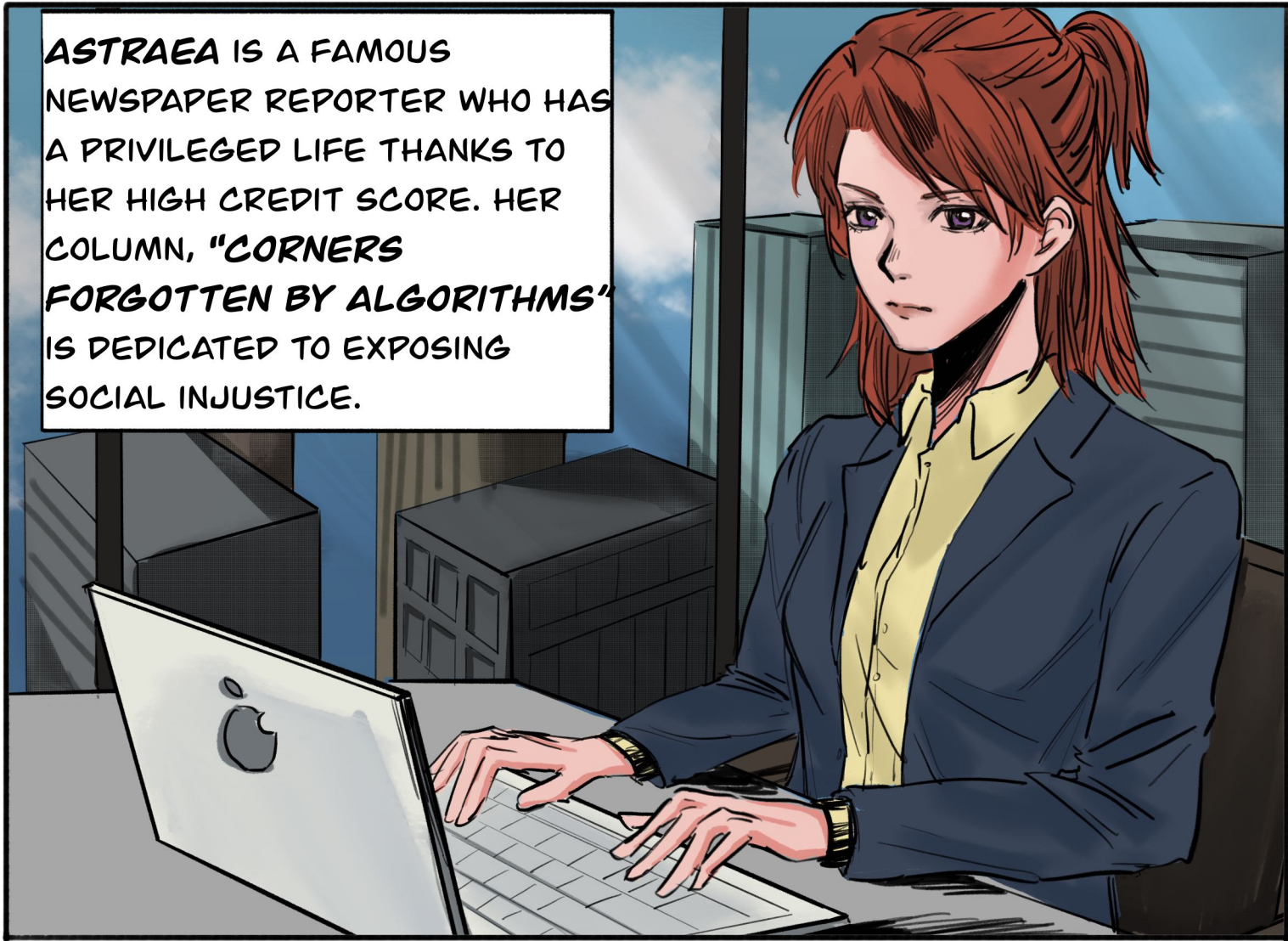
Your Credit
Points



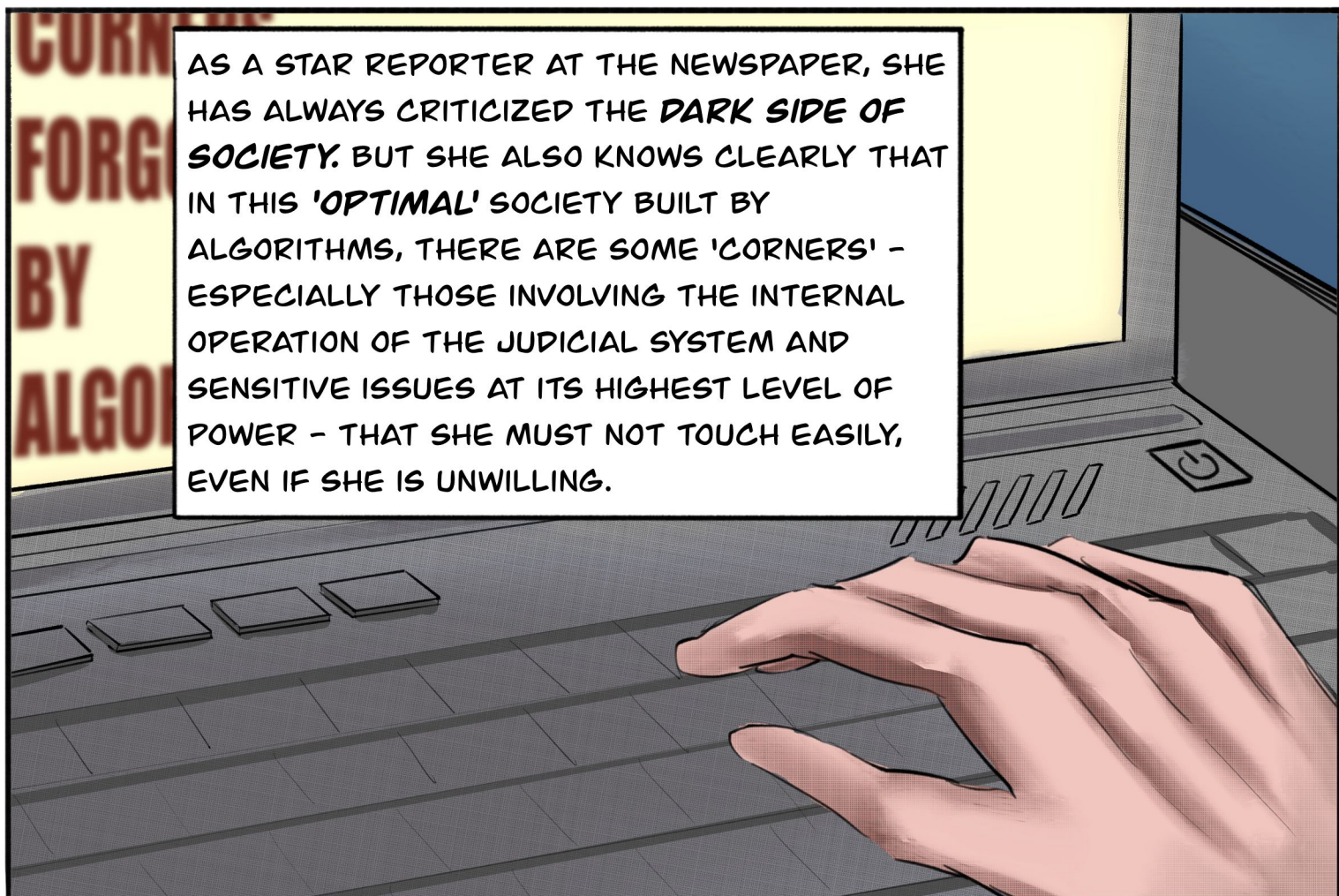
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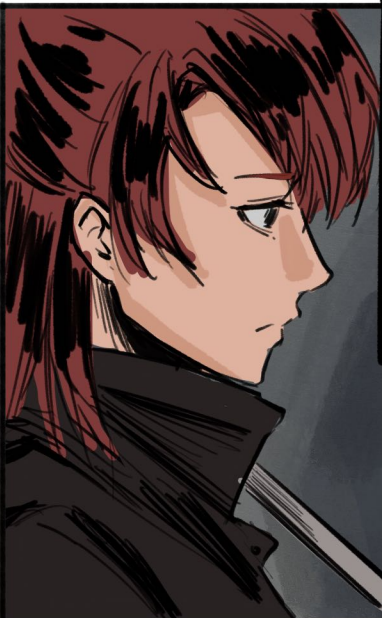
Your Credit
Points

ASTRAEA IS A FAMOUS NEWSPAPER REPORTER WHO HAS A PRIVILEGED LIFE THANKS TO HER HIGH CREDIT SCORE. HER COLUMN, "**CORNERS FORGOTTEN BY ALGORITHMS**" IS DEDICATED TO EXPOSING SOCIAL INJUSTICE.



AS A STAR REPORTER AT THE NEWSPAPER, SHE HAS ALWAYS CRITICIZED THE **DARK SIDE OF SOCIETY**. BUT SHE ALSO KNOWS CLEARLY THAT IN THIS '**OPTIMAL**' SOCIETY BUILT BY ALGORITHMS, THERE ARE SOME '**CORNERS**' - ESPECIALLY THOSE INVOLVING THE INTERNAL OPERATION OF THE JUDICIAL SYSTEM AND SENSITIVE ISSUES AT ITS HIGHEST LEVEL OF POWER - THAT SHE MUST NOT TOUCH EASILY, EVEN IF SHE IS UNWILLING.





I HAVE BEEN
REPORTING
ON THE
LOWER
CLASSES OF
SOCIETY FOR
MANY YEARS



AND I
THOUGHT I
HAD SEEN
THROUGH
THE
FORGOTTEN
CORNERS



BUT THIS
TIME, THE
CLUE
BROUGHT ME
TO A PLACE
THAT IS
DARKER
THAN I
IMAGINED



ARE YOU THE REPORTER WHO
CONTACTED ME? YOU ARE FINALLY
HERE...



230

⚠ WARNING



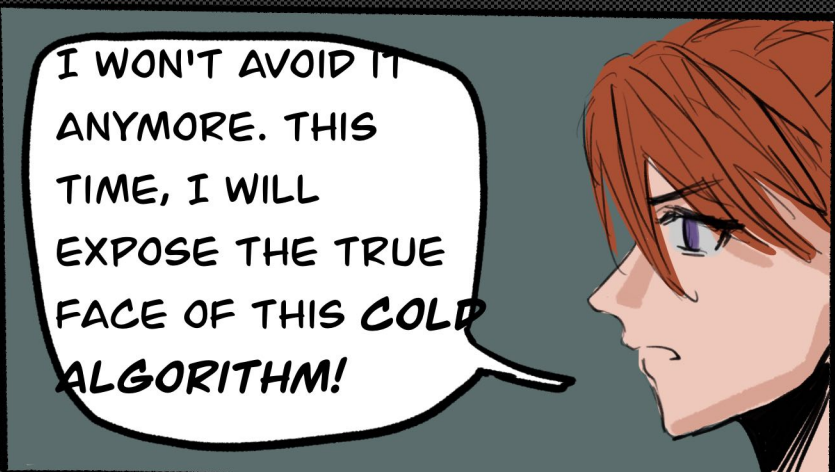
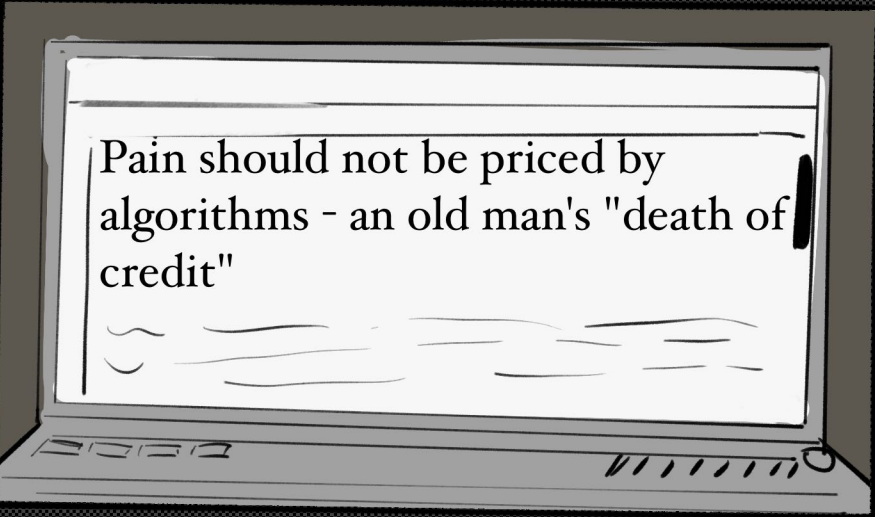
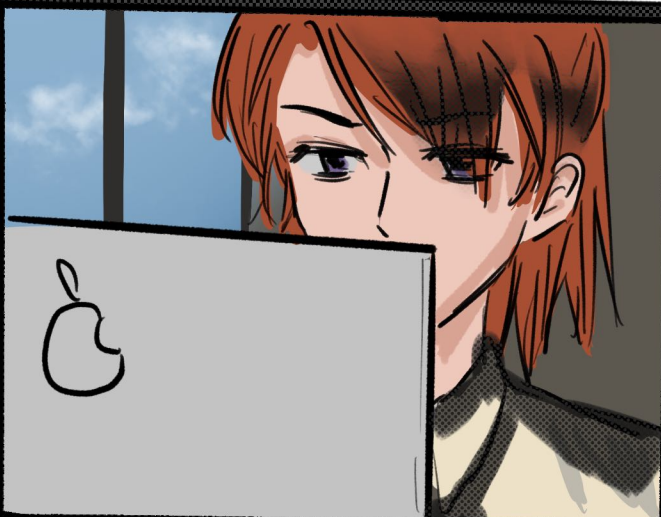
LIFE-SAVING MEDICAL TREATMENT WAS DEFINED AS "ABUSE" UNDER THE COLD LOGIC OF THE ALGORITHM. THIS DIRECTLY DESTROYED EVERYTHING THAT SUSTAINED HIS LIVELIHOOD AND DIGNITY.

FOUR CHEMOTHERAPY SESSIONS A MONTH... THIS IS CLEARLY A LIFE-SAVING TREATMENT! HOW COULD IT BECOME... A **MEDICAL RESOURCE ABUSER**?!

THE SYSTEM SAID THAT I... I TOOK UP TOO MANY PUBLIC RESOURCES... MY CREDIT POINTS... IS GONE...

SO... ALL YOUR MEDICAL COVERAGE HAS BEEN CANCELED?

.....YES.



I WON'T AVOID IT ANYMORE. THIS TIME, I WILL EXPOSE THE TRUE FACE OF THIS COLD ALGORITHM!





Legal warning letter:
Infringement notice for false reports



Your Social Credit Score
dropped to 635.



Important Notice: Adjustment of your
advanced media permissions

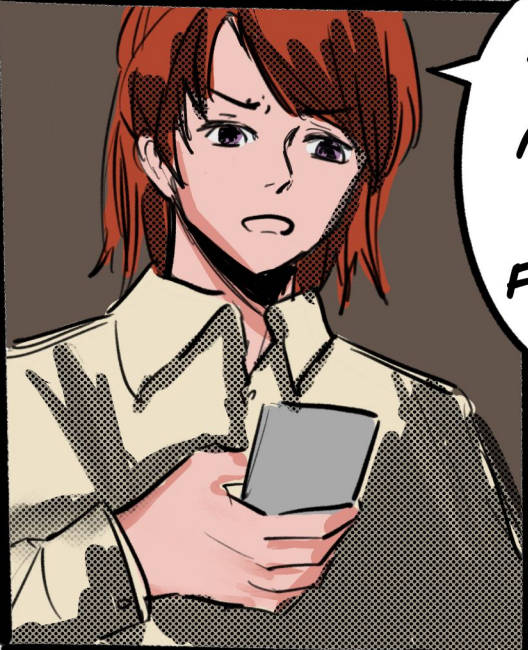
Based on your latest social credit assessment, your
advanced news interview permissions and exclusive
publishing channels will be temporarily frozen.

DING!
DING!!
DING!!!
WHAT?

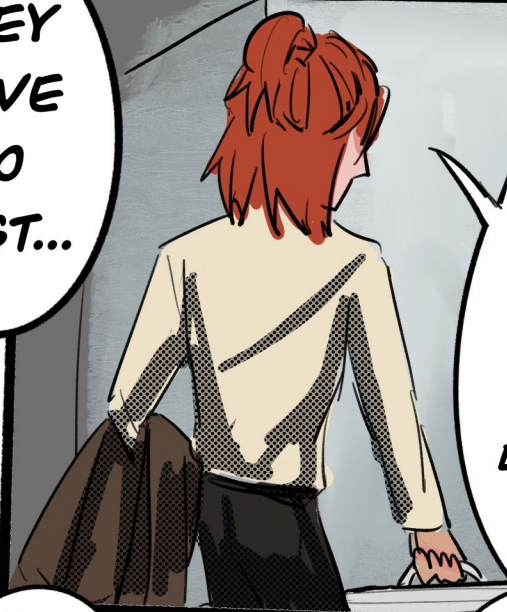


Alert: Credit score has dropped abnormally! Please pay attention to the impact of your personal behavior on your social credit rating!

THEY
MOVE
SO
FAST...



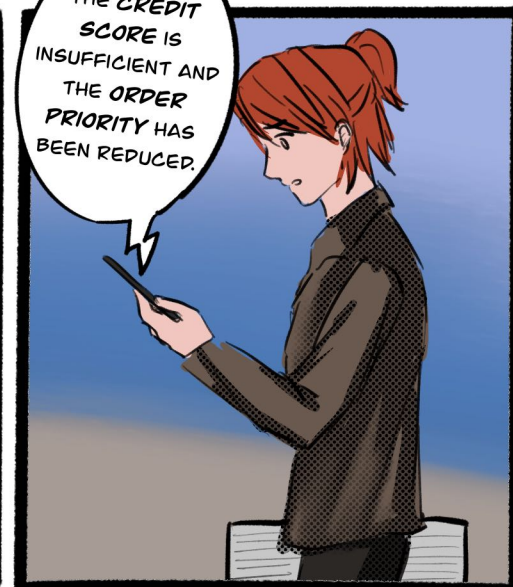
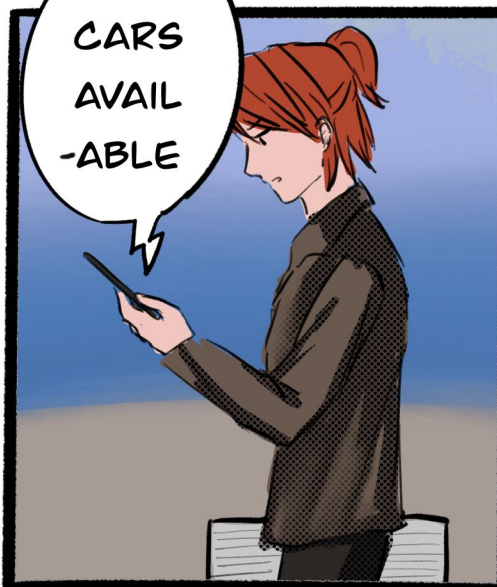
I HAVE TO
GET AHEAD OF
THEM AND
MAKE SURE
THE DATA IS
SAFE! AT
LEAST, THIS
BACKUP WON'T
BE EASILY
FOUND.



I NEED
TO CALL
A CAR

NO
CARS
AVAIL-
-ABLE

THE CREDIT
SCORE IS
INSUFFICIENT AND
THE ORDER
PRIORITY HAS
BEEN REDUCED.



THE IMPACT ON
CREDIT SCORE
IS SO DIRECT? I
GUESS I CAN
ONLY TAKE THE
SUBWAY.

M

Insufficient credit score for
travel. Please try the manual
lane or choose an alternate
route.

Manual
Lane

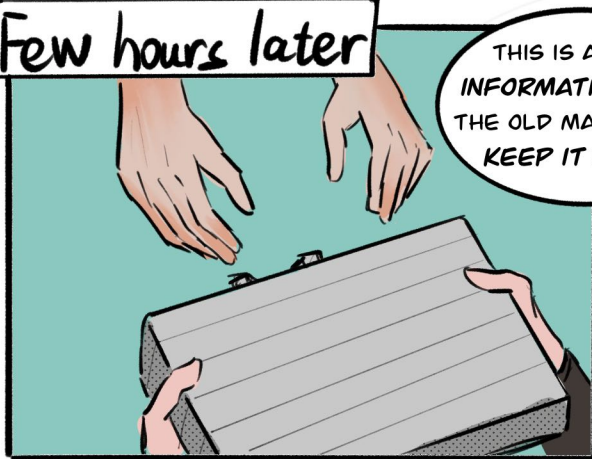
YOUR CRE
YOU

MAYBE I
CAN TRY TO
FILE AN
ONLINE
COMPLAINT
?

THE SUCCESS
RATE OF
SIMILAR
APPEALS IS
ONLY 12%.
IT IS
RECOMMENDED
THAT YOU
ACCEPT THE
FINAL DECISION
OF THE
SYSTEM.

EVEN THIS
LAST
OFFICIAL
CHANNEL...
THE HOPE
IS SO SLIM.

Few hours later



THIS IS ALL THE INFORMATION ABOUT THE OLD MAN. PLEASE KEEP IT FOR ME.

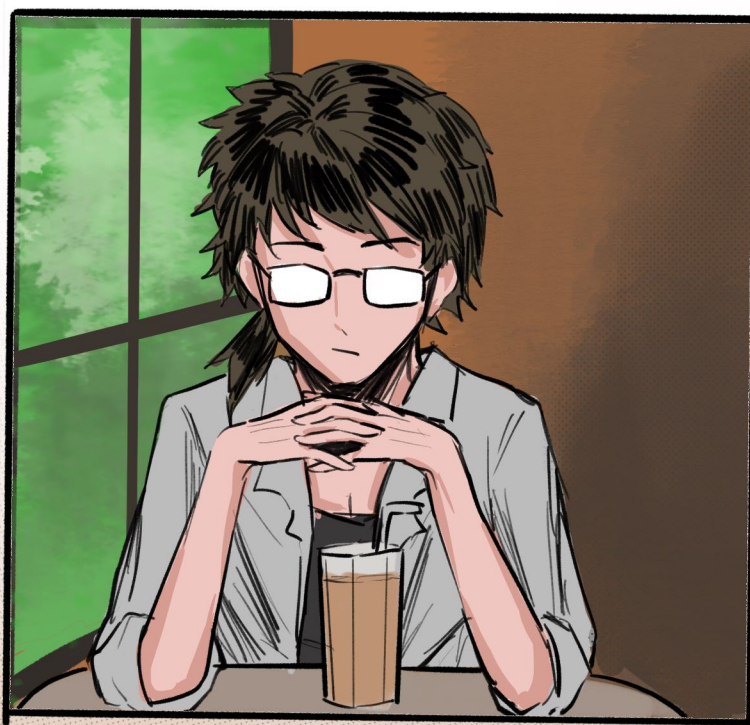
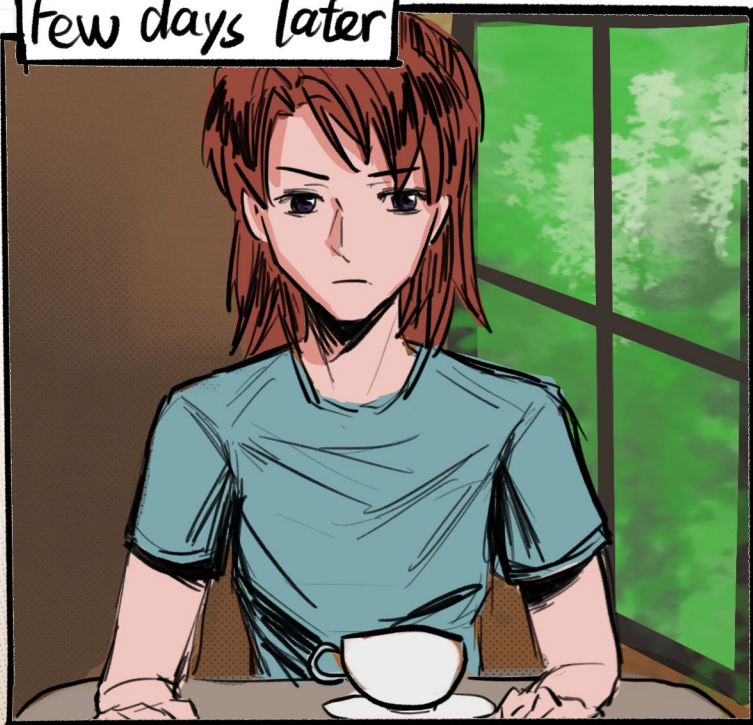


DON'T WORRY, I WILL. WHAT ARE YOU GOING TO DO NEXT?



I'M GOING TO FIND SOMEONE WHO KNOWS THE INSIDE STORY, SOMEONE WHO CAN HELP ME UNCOVER THE MYSTERY OF THE ALGORITHM.

Few days later



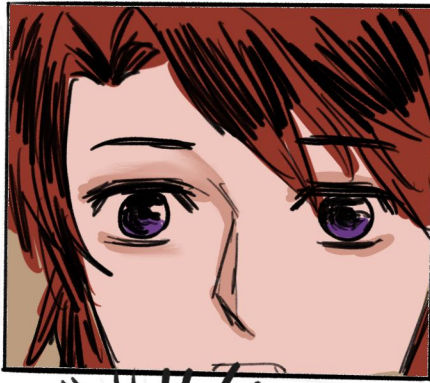
MINERVA, I KNOW YOU WERE ONCE AN ENGINEER FROM THE **SYSTEM'S CORE TEAM**. PLEASE HELP ME, I NEED TO KNOW THE **TRUTH!**

THE TRUTH?

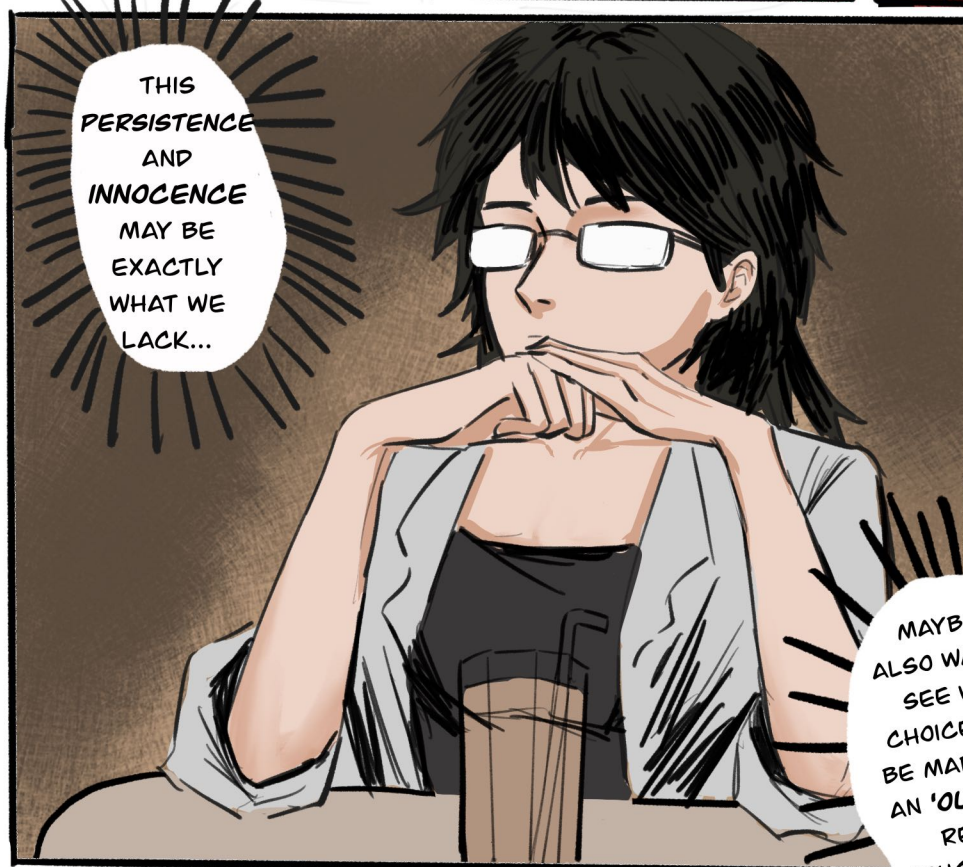
DO YOU THINK WHAT YOU INVESTIGATED IS THE TRUTH? MS. REPORTER, YOUR INVESTIGATION IS IN VAIN.

WHY IS EVERYTHING I DO IN VAIN? I DON'T UNDERSTAND YOU. ISN'T IT TRUE THAT THE ELDERLY IN MY REPORT WERE WRONGLY JUDGED BY THE SYSTEM AS **MEDICAL ABUSERS?**

I KNEW FROM THE VERY BEGINNING THE 'INSIDER' OF THIS SYSTEM, IT WAS NOT A **SIMPLE TECHNICAL ISSUE**. NO MATTER HOW HARD YOU WORK, YOU WILL EVENTUALLY BE LIKE ME, AFTER SEEING EVERYTHING CLEARLY, ONLY DESPAIR AND POWERLESSNESS ARE LEFT.



NO, I WON'T.
EVEN IF THERE IS
DESPAIR AHEAD, I
WILL SEE IT WITH
MY OWN EYES. I
DON'T WANT THAT
OLD MAN, AND
MORE PEOPLE, TO
BE **SWALLOWED**
BY THE **SYSTEM**
LIKE THIS.
PLEASE BELIEVE
ME.



THIS
PERSISTENCE
AND
INNOCENCE
MAY BE
EXACTLY
WHAT WE
LACK...

IN THE END,
MINERVA WAS
MOVED BY THE
ASTRAEA'S
DETERMINATION
AND CHOSE TO
GUIDE HER TO
SEE EVERYTHING
MINERVA KNEW
WITH HER OWN
EYES

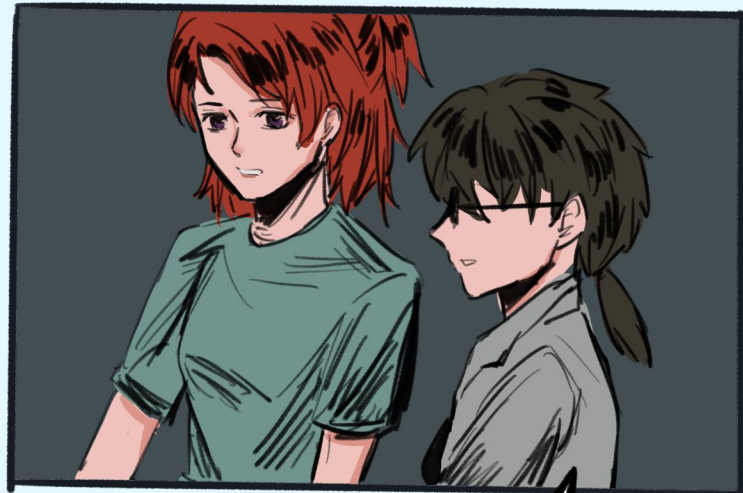
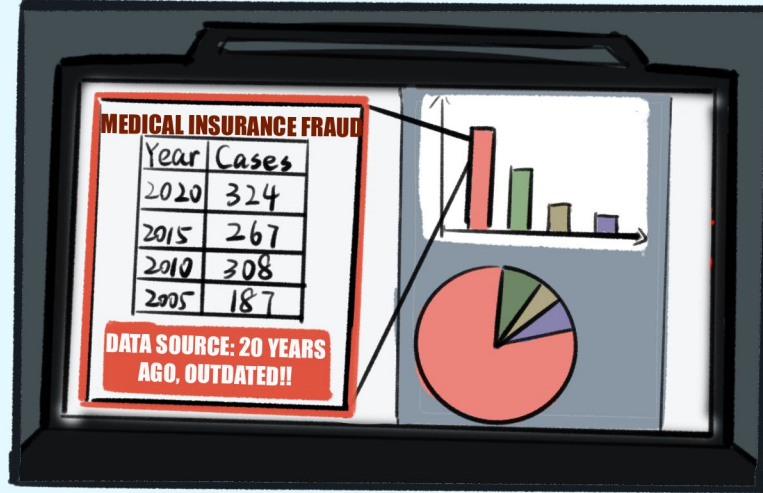
MAYBE, I
ALSO WANT TO
SEE WHAT
CHOICES WILL
BE MADE WHEN
AN 'OUTSIDER'
REALLY
TOUCHES THE
TRUTH...



THIS IS MY
STUDIO,
YOU CAN
FIND A
PLACE TO
SIT.



LET ME SHOW YOU
SOMETHING.



LOOK HERE... THE ALGORITHMS IN THE MEDICAL PART ARE STILL OVERLY RELYING ON **MEDICAL INSURANCE FRAUD DATA 20 YEARS AGO**. THE MEDICAL MODEL AT THAT TIME WAS **COMPLETELY DIFFERENT** FROM NOW, AND THIS DATA SHOULD HAVE BEEN **ELIMINATED** LONG AGO.



WAIT... I STILL DON'T UNDERSTAND. EVEN IF THE DATA IS OUTDATED, HOW CAN THE SYSTEM **DIRECTLY** COME TO THE CONCLUSION OF "ABUSE OF MEDICAL RESOURCES"? HOW DOES THE **PROCESS** WORK IN BETWEEN?

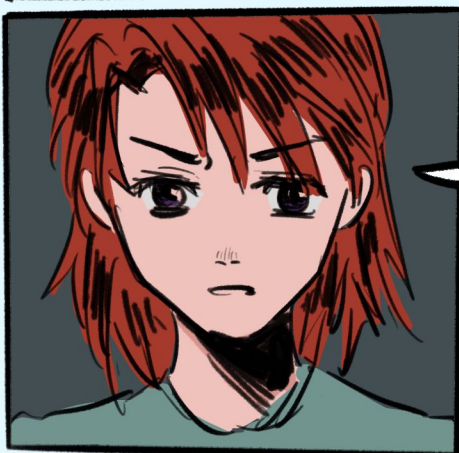


YOU ASKED A GOOD QUESTION, WHICH IS WHAT WE OFTEN CALL THE AI '**BLACK BOX**' PROBLEM. SIMPLY PUT, IT REFERS TO THE FACT THAT THE **INTERNAL DECISION-MAKING PROCESS** OF SOME HIGHLY COMPLEX AI SYSTEMS, ESPECIALLY DEEP LEARNING MODELS, IS COMPLETELY **OPAQUE AND UNEXPLAINABLE** TO HUMANS. WE INPUT DATA INTO IT AND IT WILL GIVE US THE RESULT, BUT WE CANNOT FOLLOW AND UNDERSTAND HOW IT **REASONED, WEIGHED AND FINALLY REACHED THE RESULT** STEP BY STEP LIKE TRADITIONAL PROGRAMS. TO USE A COMMON METAPHOR, IT IS LIKE AN "**OPAQUE BOX**". WE ONLY KNOW WHAT WE THROW IN AND WHAT WE GET, BUT WE HAVE NO IDEA WHAT HAPPENS **INSIDE THE BOX**.

FOR THE PROBLEMS WE ENCOUNTER, SUCH AS **OUTDATED MEDICAL INSURANCE DATA**, AFTER IT IS ABSORBED BY AI, THE SYSTEM WILL USE IT TO TRAIN THE MODEL, AND THEN COMBINE IT WITH MILLIONS OF OTHER INVISIBLE **VARIABLES AND WEIGHTS**, AND FINALLY FORM A JUDGMENT IN THE '**BLACK BOX**' THAT WE CANNOT UNDERSTAND. WE CAN ONLY SEE THE DATA **INPUT** (OLD DATA) AND THE RESULT **OUTPUT** (MISJUDGMENT), BUT WE CANNOT KNOW **HOW** THIS '**BLACK BOX**' CONNECTS THE TWO.

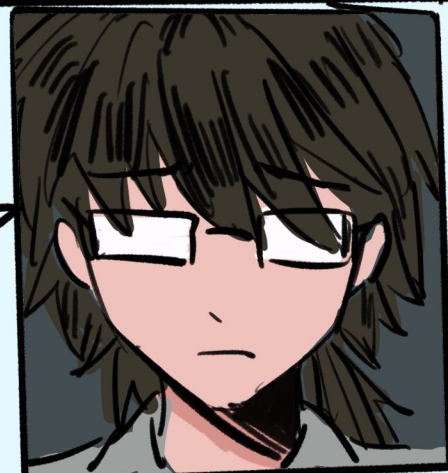


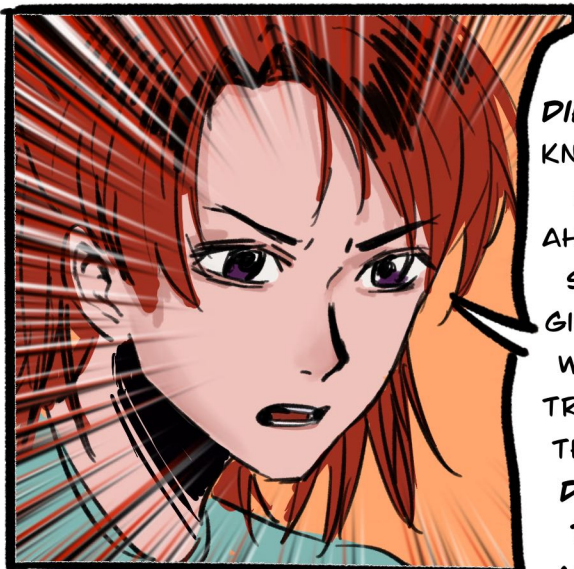
I SEE... SO, IT IS NOT ONLY A TECHNICAL PROBLEM, BUT ALSO A PIECE OF CLOTH TO HIDE THE BEHIND-THE-SCENES OPERATIONS, MAKING THOSE **INJUSTICES IMPECCABLE**.



SINCE YOU CAN DIG UP THESE **EVIDENCES**, THERE MUST BE OTHERS WHO CAN. WHY HAS NO ONE **EXPOSED** THESE THINGS BEFORE?

EXPOSE? MANY PEOPLE HAVE TRIED, BUT IT'S TOO DIFFICULT. DO YOU THINK THOSE WHO KNOW THE TRUTH WILL **ALLOW THE EVIDENCE TO BE EXPOSED**? SOME FORCES ARE FAR MORE **POWERFUL** THAN YOU THINK...



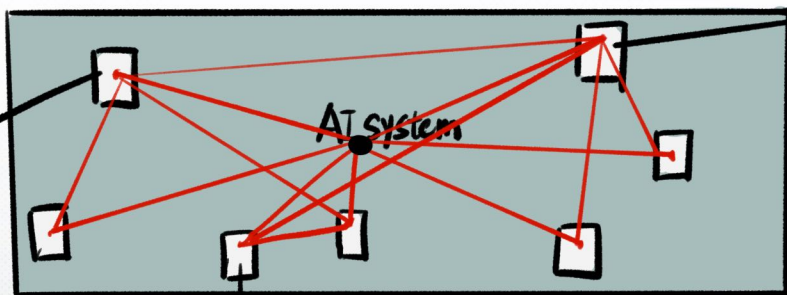


I KNOW IT'S DIFFICULT, AND I KNOW THERE ARE **OBSTACLES** AHEAD. BUT EVEN SO, I WANT TO GIVE IT A TRY. IF WE DON'T EVEN TRY, WHO SHOULD THOSE WHO ARE **DEVoured BY THE SYSTEM** ASK FOR HELP?

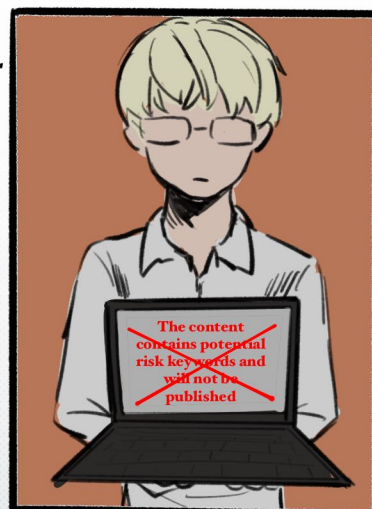
YOU ARE SUCH A **NAIVE AND STUBBORN** GUY. BUT PERHAPS, THIS IS EXACTLY WHAT THIS QUAGMIRE NEEDS. OK, ASTRAEA, I'LL BE WITH YOU. HOWEVER, ONCE IT STARTS, THERE IS NO **TURNING BACK**.



Few weeks later



A single mother was told she lost custody of her children due to her ex-husband's debt problems



A university student's academic paper was judged by "academic AI" to contain "dangerous ideas" and cannot be published



A veteran was banned by a takeaway platform because of his comrades' criminal record

SO, THESE PEOPLE THEMSELVES ARE VICTIMS OF **EXISTING SOCIETAL BIAS**, AND THE AI JUST **LEARNED AND AMPLIFIED** THESE BIASES.....

THAT'S RIGHT. WE HAVE FOUND SO MUCH EVIDENCE THAT THESE FLAWS ARE **NOT ACCIDENTAL**, BUT RATHER **INTENTIONAL** IN SYSTEM DESIGN AND DECISION-MAKING.

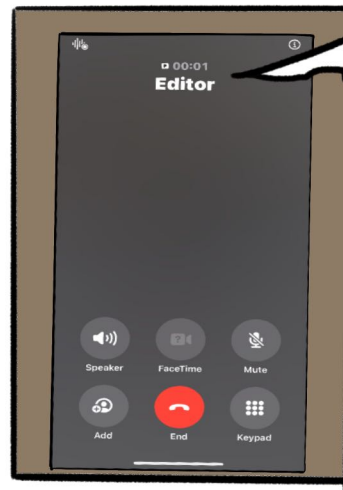
THESE CASES ARE THE REAL CONSEQUENCES OF **ALGORITHMIC BIAS**. THESE CORNERS THAT WERE '**FORGOTTEN**' BY THE SYSTEM TELL A STORY DESTROYED BY **ALGORITHMIC BIASES**. THESE **TRAGIC STORIES** ARE THE MOST POWERFUL **SOCIAL EVIDENCES** TO REVEAL THE TRUTH.



Few days later

ALMOST AN HOUR... NO WORD FROM THE BOSS YET?! MY DIRECT PUBLISHING RIGHTS WERE **LOCKED DOWN** AFTER THAT LAST REPORT. THIS NEW EXPOSÉ HAS TO HIT THE FRONT PAGE! IT'S THE ONLY WAY TO **EXPLODE PUBLIC OPINION**, TO LEAVE THE HIGHER-UPS NO PLACE TO HIDE!

I KNOW YOUR HURRY. BUT THIS REPORT... IT CUTS **TOO DEEP**. THE POWERS ABOVE? THEY DON'T WANT THIS **LID LIFTED**.



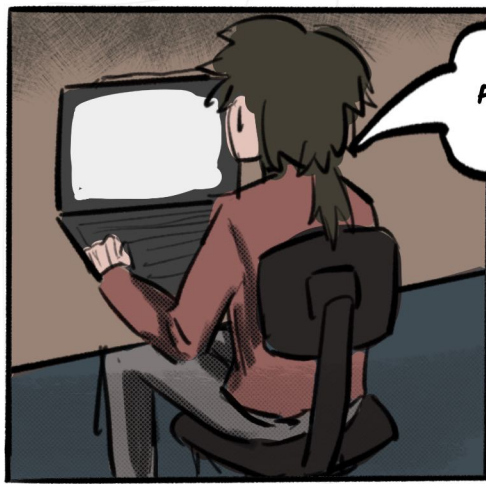
HI ASTRAEA, I'M SORRY BUT... THE NEWSPAPER IS **FACING SOME PRESSURE**, AND YOUR REPORT... WE **WON'T BE** ABLE TO PUBLISH IT.

~~Content sensitive,
unable to publish~~

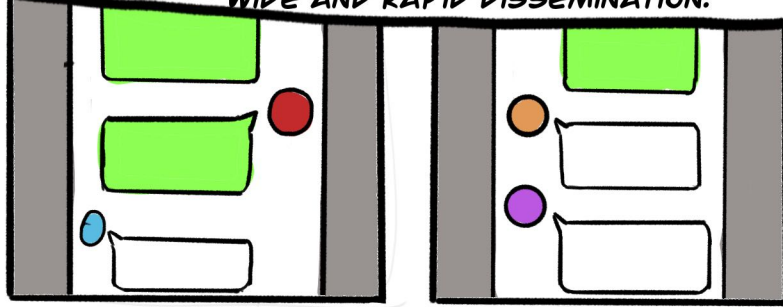
~~Violates
community
guidelines~~

WELL? THE OTHER PLATFORMS... DID ANYTHING GET THROUGH?

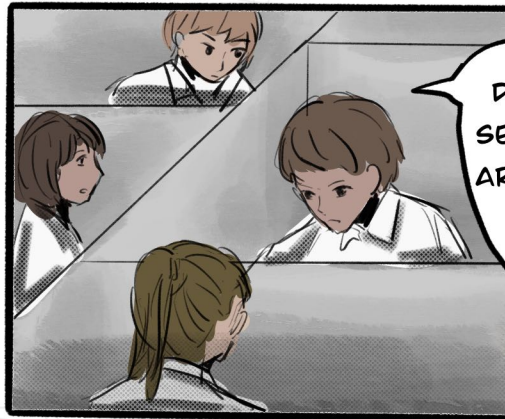
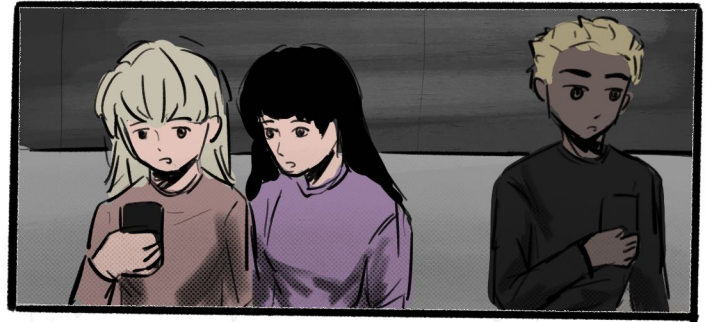
NO! NOTHING! I TRIED EVERY PLATFORM I COULD THINK OF! EACH TIME I HIT 'PUBLISH,' THESE **WARNINGS** POPPED UP, SOME EVEN **BLOCKING** MY ACCOUNT DIRECTLY! AND MY PHONE'S FLOODED WITH THESE **ANONYMOUS THREATS**... THEY'RE ALREADY ON TO ME!



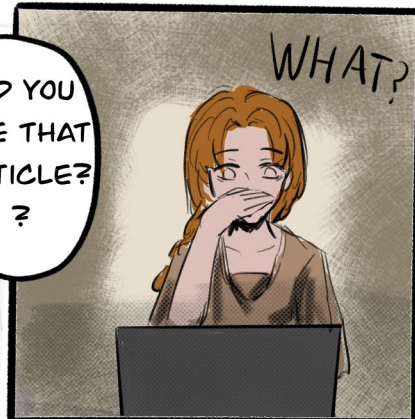
TRADITIONAL CHANNELS ARE BLOCKED. WE'LL NEED UNCONVENTIONAL MEANS. I'LL **ANONYMOUSLY** SPREAD THE REPORTS TO **ENCRYPTED FORUMS**--THEY'LL FIND THOSE PLACES HARD TO CONTROL. YOU, USE YOUR **SOCIAL NETWORK**. PASS ON SNIPPETS OR LINKS OF THE REPORTS PRIVATELY TO FRIENDS, COLLEAGUES, AND IN GROUP CHATS. THE GOAL IS **WIDE AND RAPID DISSEMINATION**.



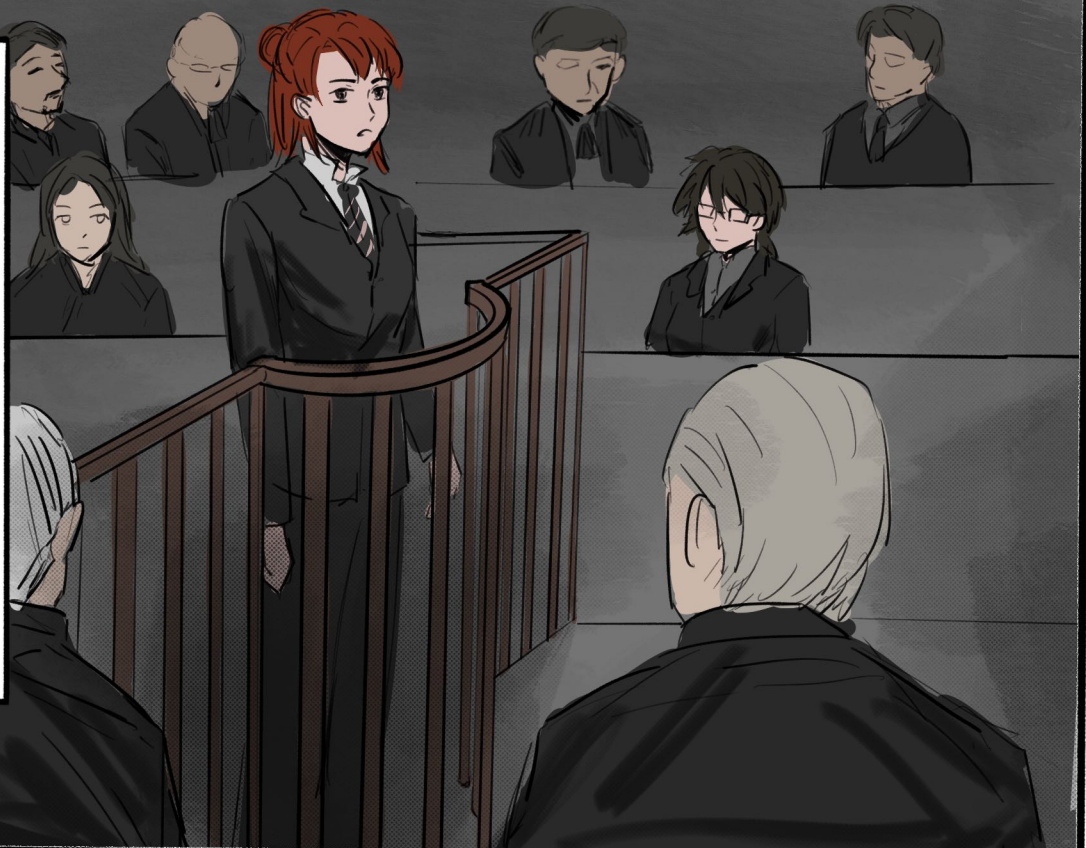
THE TRUTH, FINALLY UNLEASHED
THROUGH UNORTHODOX MEANS,
RIPPED THROUGH THE SILENCE.
THE PUBLIC SAW. THEY REACTED.



DID YOU
SEE THAT
ARTICLE?
?



UNDER IMMENSE
PUBLIC PRESSURE
AND THE IN-DEPTH
INVESTIGATIVE
REPORTS, THE
GOVERNMENT COULD
NO LONGER IGNORE
THE SITUATION. A
**SOCIAL
REVOLUTION**
REGARDING
TECHNOLOGY ETHICS
AND CHECKS AND
BALANCES QUIETLY
BEGAN.



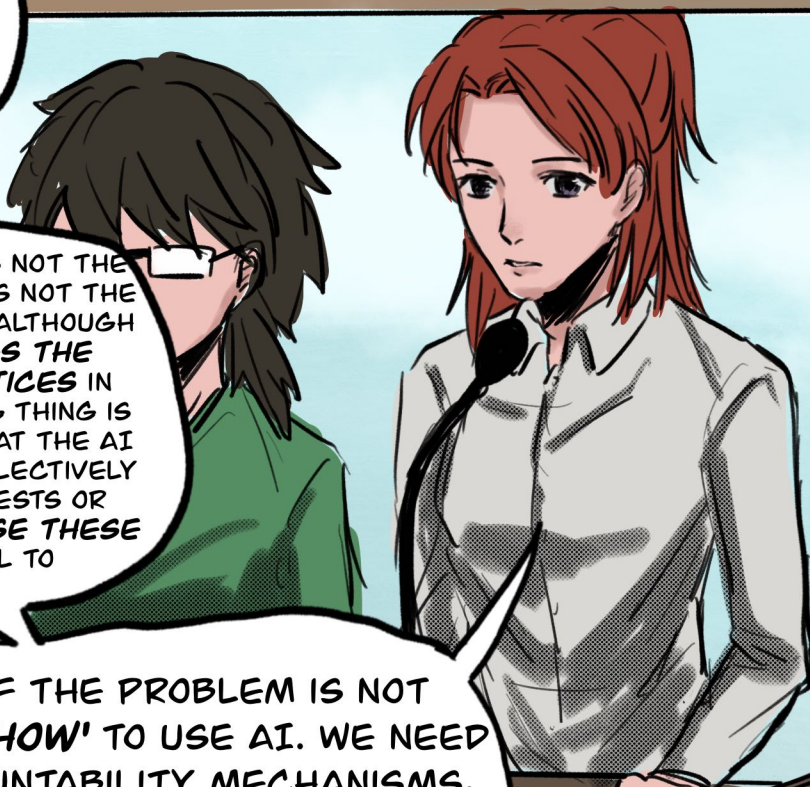


NEW LAWS WERE ENACTED, REQUIRING ALL AI SYSTEMS TO **DISCLOSE** THEIR CORE DECISION-MAKING LOGIC IN STAGES AND TO **ESTABLISH** ACCESSIBLE HUMAN APPEAL CHANNELS. CONCURRENTLY, AN INDEPENDENT **HUMAN JURY** WAS FORMED, POSSESSING FINAL REVIEW AUTHORITY OVER AI DECISIONS. SOCIETY BEGAN TO **RE-EXAMINE AND RECLAIM** CONTROL OVER ITS DESTINY, REINTEGRATING THE CONCEPT OF CHECKS AND BALANCES INTO THE FRAMEWORK OF TECHNOLOGICAL GOVERNANCE.

WE USED TO THINK THAT THE BIGGEST DANGER OF ARTIFICIAL INTELLIGENCE WAS WHETHER IT WOULD BECOME **TOO SMART OR EVEN OUT OF CONTROL**. WE TRIED HARD TO FIND LOOPHOLES IN THE ALGORITHM AND FIX ITS BIAS.

BUT IN THE END, I REALIZED THAT WAS NOT THE DEEPEST CRISIS. THE REAL AI CRISIS IS NOT THE DEFECTS OF THE TECHNOLOGY ITSELF. ALTHOUGH AI OFTEN **INHERITS AND AMPLIFIES THE EXISTING PREJUDICES AND INJUSTICES** IN HUMAN SOCIETY, THE MOST TERRIFYING THING IS THAT WHEN THOSE IN POWER **KNOW** THAT THE AI SYSTEM HAS THESE DEFECTS, THEY SELECTIVELY **IGNORE** THEM FOR THEIR OWN INTERESTS OR STABILITY CONSIDERATIONS, OR EVEN **USE THESE DEFECTS** TO TURN AI INTO A TOOL TO **CONSOLIDATE POWER**.

THEREFORE, THE CORE OF THE PROBLEM IS NOT 'WHETHER' TO USE AI, BUT '**HOW**' TO USE AI. WE NEED TO ESTABLISH SOUND ACCOUNTABILITY MECHANISMS, ACCESSIBLE APPEAL CHANNELS, AND INDEPENDENT THIRD-PARTY OVERSIGHT. THIS IS NOT JUST ABOUT **FIXING ALGORITHMS**; IT'S ABOUT ENSURING THAT WE, AS HUMAN DECISION-MAKERS, CAN **UNDERSTAND AND QUESTION** AI'S DECISIONS, AND **RE-ESTABLISH OUR ETHICAL RESPONSIBILITY AND LEADERSHIP** IN TECHNOLOGICAL DEVELOPMENT. THIS IS THE ONLY PATH TO A TRULY JUST FUTURE.



CLICK
CLICK



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