ARMY CYBER INSTITUTE AT WEST POINT PRESENTS:

1000 CUTS

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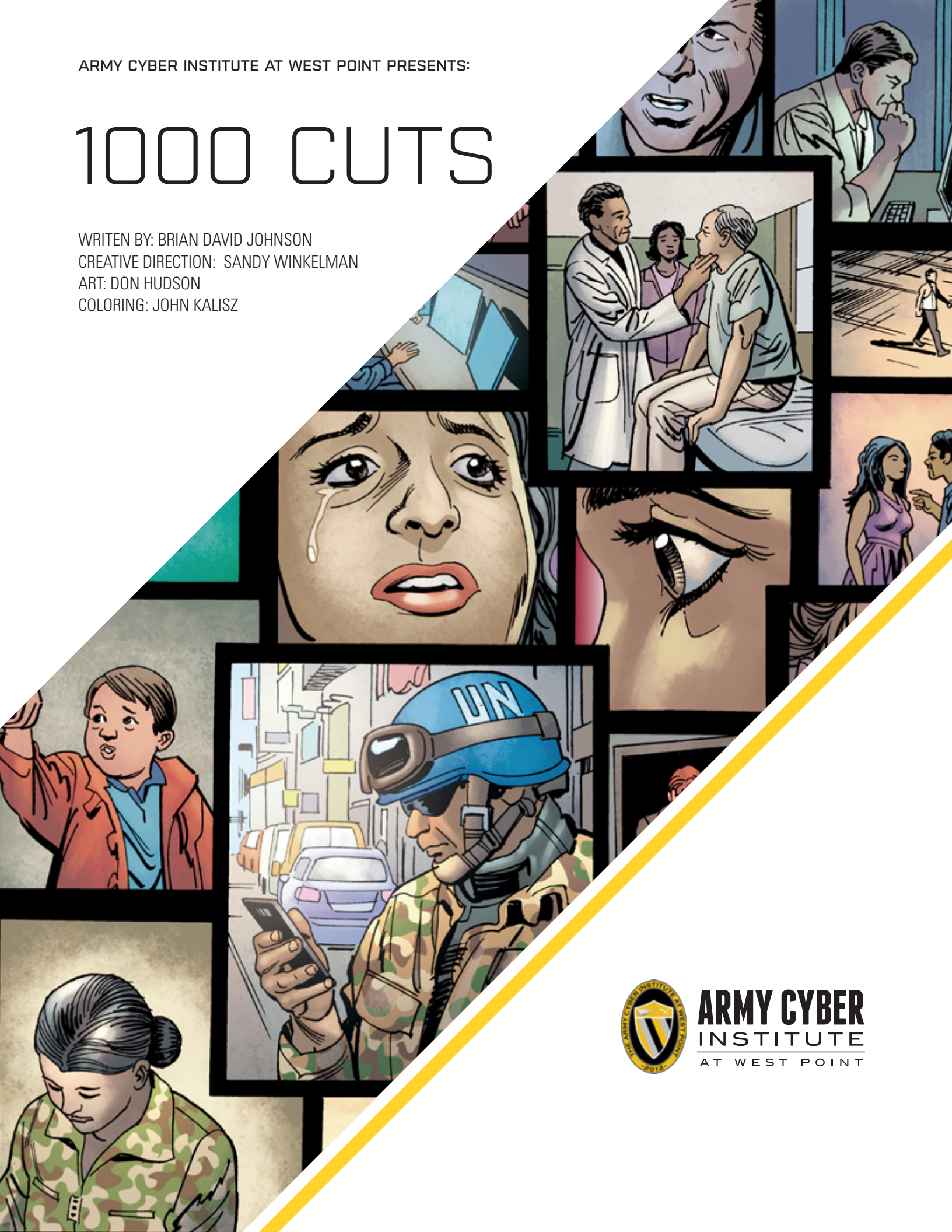


ARMY CYBER INSTITUTE AT WEST POINT

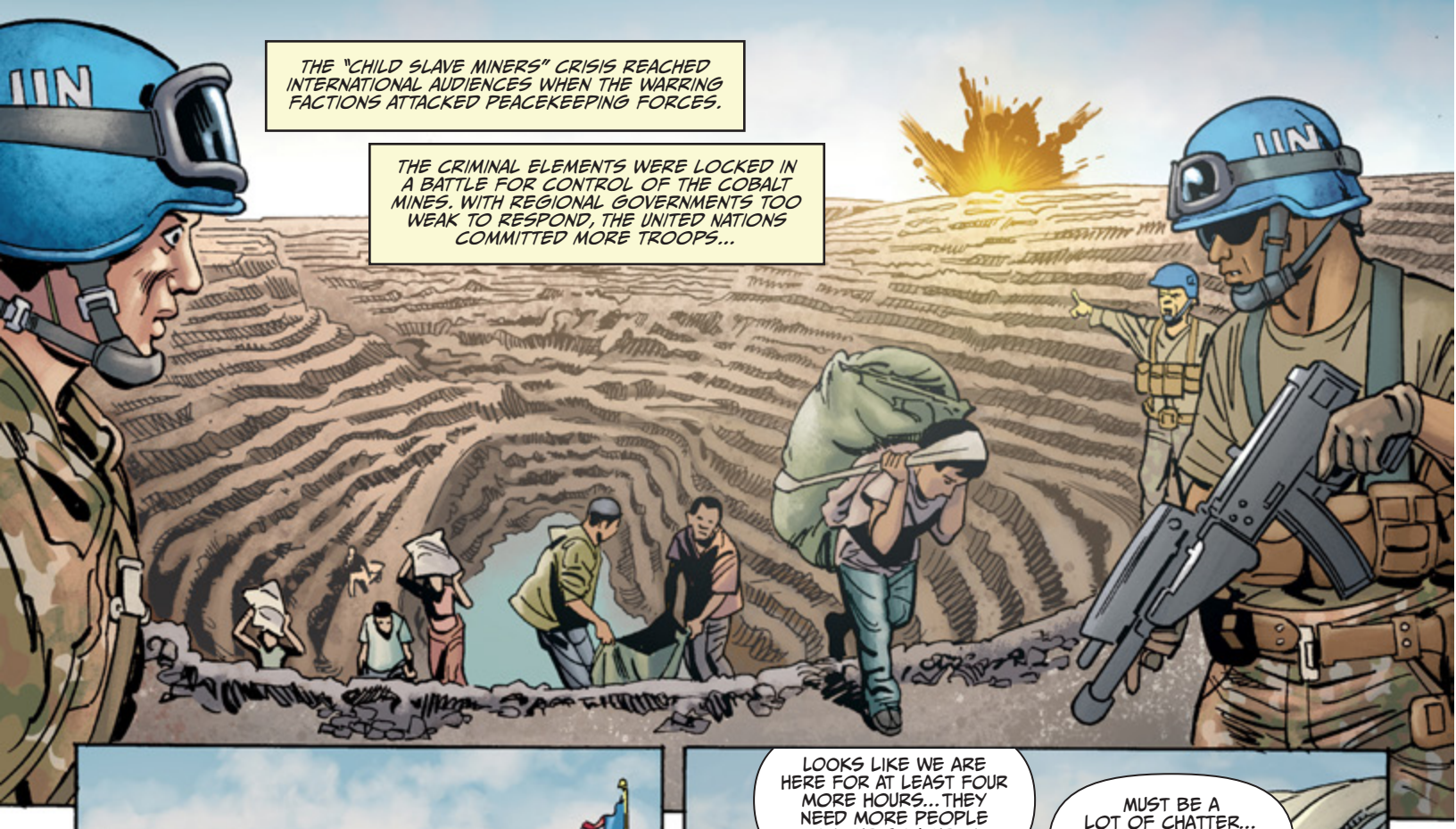
BUILDING A BETTER, STRONGER AND MORE SECURE FUTURE FOR OUR ARMED FORCES

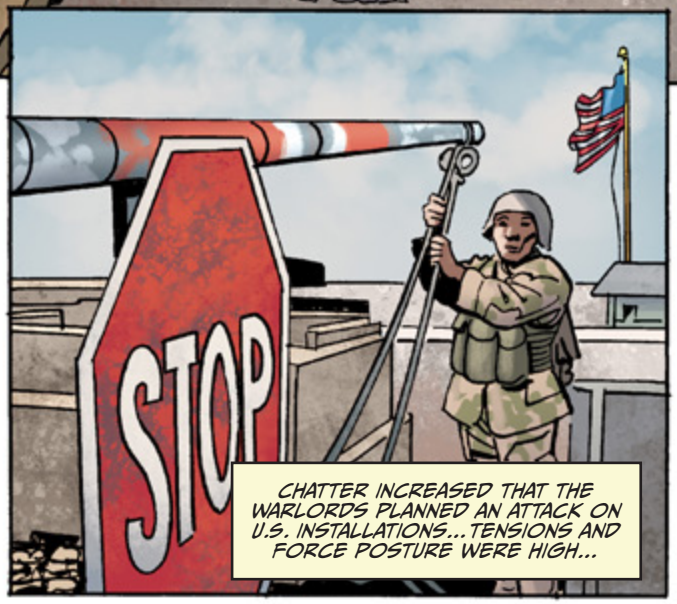
Science Fiction Prototypes are science fiction stories based on future trends, technologies, economics, and cultural change. The story you are about to read is based on threatcasting research from the Army Cyber Institute at West Point and Arizona State University's Threatcasting Lab. Our story does not shy away from a dystopian vision of tomorrow. Exploring these dark regions inspires us to build a better, stronger, and more secure future for our Armed Forces.

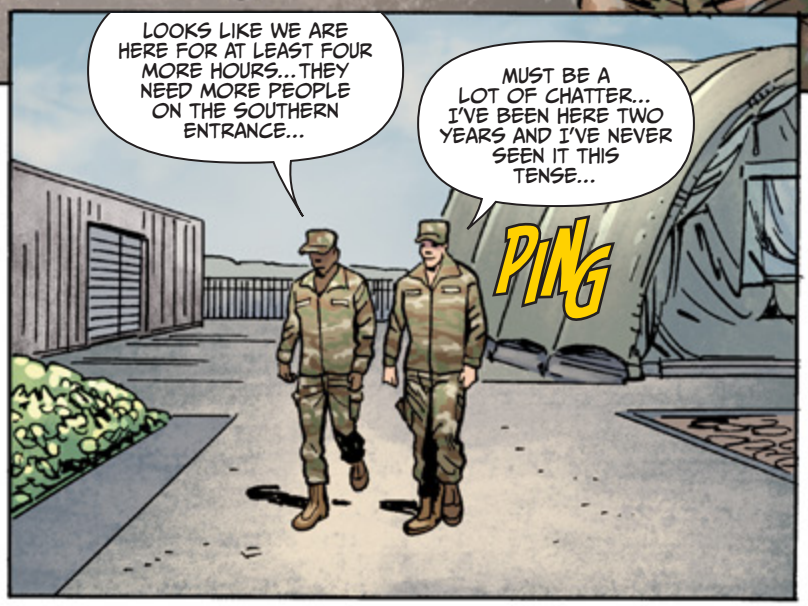
Lt. Col. Natalie Vanatta
Academy Professor
U.S. Army Cyber Institute

1000 CUTS

A foreign criminal organization has taken advantage of known vulnerabilities in network devices and online services comprising the global Internet of things. Violations of U.S. military operational security, breached network devices, and previously exposed personal information have enabled these nefarious actors to target individual members of a U.S. military unit deployed in support of U.N. peacekeeping operations. The distributed targeting of individual members of the unit has left the entire organization distracted from their military responsibilities. Subsequently, these attacks are enough to disrupt the entire unit's ability to adequately defend their base against the criminal organization's attacks. In other words, the deployed unit has suffered a death by a "1000 cuts."

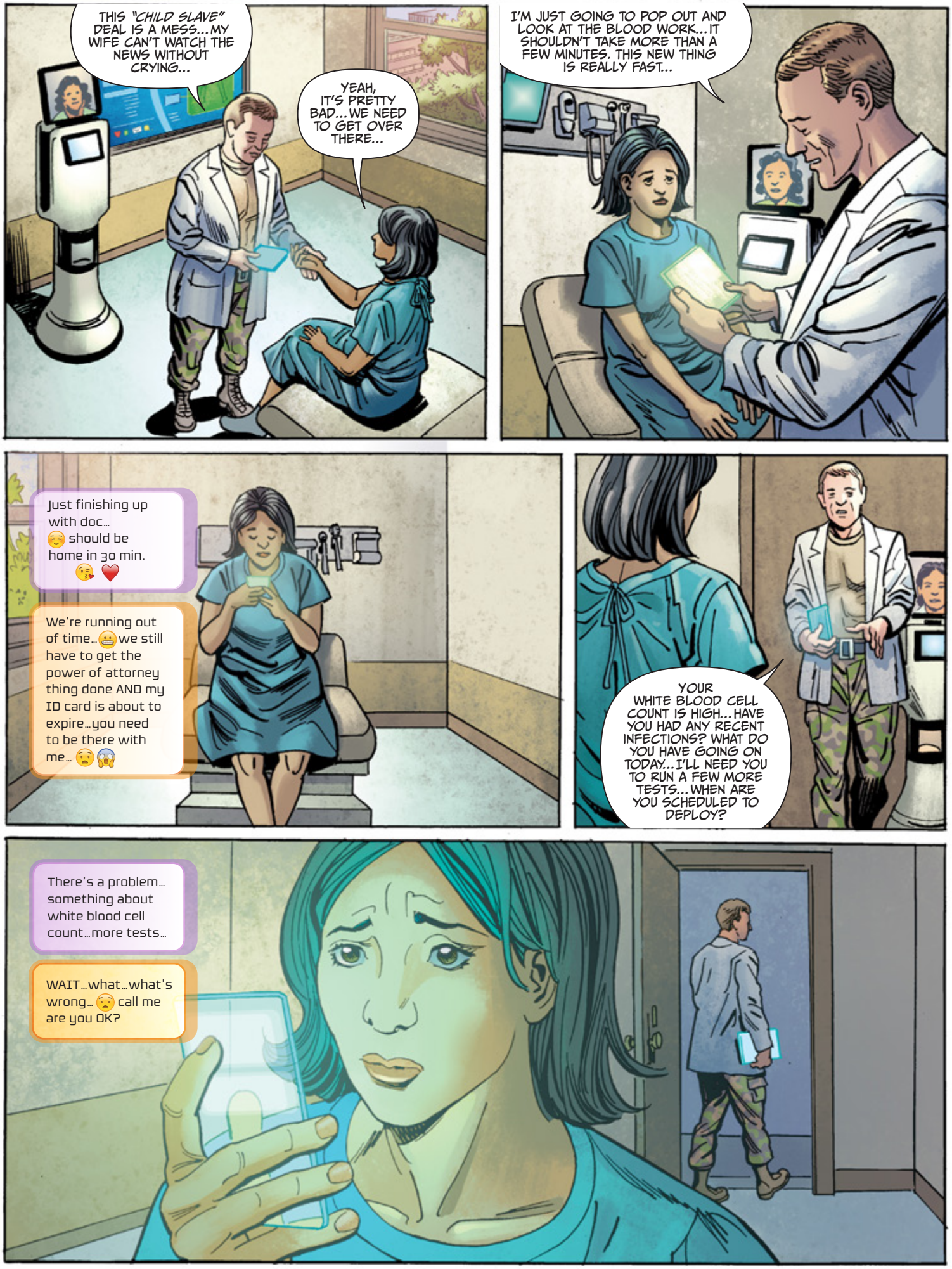

THE "CHILD SLAVE MINERS" CRISIS REACHED INTERNATIONAL AUDIENCES WHEN THE WARRING FACTIONS ATTACKED PEACEKEEPING FORCES.
THE CRIMINAL ELEMENTS WERE LOCKED IN A BATTLE FOR CONTROL OF THE COBALT MINES. WITH REGIONAL GOVERNMENTS TOO WEAK TO RESPOND, THE UNITED NATIONS COMMITTED MORE TROOPS...
UN
UN


STOP
CHATTER INCREASED THAT THE WARLORDS PLANNED AN ATTACK ON U.S. INSTALLATIONS...TENSIONS AND FORCE POSTURE WERE HIGH...


LOOKS LIKE WE ARE HERE FOR AT LEAST FOUR MORE HOURS...THEY NEED MORE PEOPLE ON THE SOUTHERN ENTRANCE...
MUST BE A LOT OF CHATTER... I'VE BEEN HERE TWO YEARS AND I'VE NEVER SEEN IT THIS TENSE...
PING


HEY...ONE SEC...THIS IS JULIE...SHE'S BEEN HITTING ME ALL DAY... I NEED TO...
SURE. GO AHEAD.
ANSWER ME! What happened with the mortgage?


Bank says auto payments not gone thru in 4 months...saying foreclosure... WHAT???!!!
I don't know anything about it...makes no sense...what can I do????


THIS "CHILD SLAVE" DEAL IS A MESS... MY WIFE CAN'T WATCH THE NEWS WITHOUT CRYING...
YEAH, IT'S PRETTY BAD... WE NEED TO GET OVER THERE...
I'M JUST GOING TO POP OUT AND LOOK AT THE BLOOD WORK... IT SHOULDN'T TAKE MORE THAN A FEW MINUTES. THIS NEW THING IS REALLY FAST...
Just finishing up with doc... 😌 should be home in 30 min. 😘 ❤️
We're running out of time... 😬 we still have to get the power of attorney thing done AND my ID card is about to expire... you need to be there with me... 😟 😱
YOUR WHITE BLOOD CELL COUNT IS HIGH... HAVE YOU HAD ANY RECENT INFECTIONS? WHAT DO YOU HAVE GOING ON TODAY... I'LL NEED YOU TO RUN A FEW MORE TESTS... WHEN ARE YOU SCHEDULED TO DEPLOY?
There's a problem... something about white blood cell count... more tests...
WAIT... what... what's wrong... 😟 call me are you OK?


THIS IS GARCIA...
HELLO, MS. GARCIA, THIS IS SUNSHINE VILLA SENIOR LIVING, WE WANTED TO LET YOU KNOW THAT THE AUTOMATIC PAYMENTS FOR YOUR MOTHER'S CARE HAVE STOPPED GOING THROUGH.
WHAT? BUT THE PAYMENTS WERE SET UP AND WORKING FINE. IT'S BEEN FINE FOR THE LAST TWO YEARS...
I KNOW MS. GARCIA... I THOUGHT IT WAS ODD... THAT'S WHY I CALLED. I KNOW YOU ARE BUSY AND OUT OF THE COUNTRY RIGHT NOW...
...YOUR MOTHER'S CARE WILL CONTINUE BUT WE DO NEED THIS TAKEN CARE OF...


HANK...I GOTTA GO TAKE CARE OF SOMETHING. COVER FOR ME...I'LL BE BACK
HELLO THIS IS...
YEAH, HELLO. MY NAME IS CLAUDIA GARCIA AND I NEED TO KNOW WHY THE AUTOMATIC PAYMENTS THAT HAVE BEEN GOING THROUGH FOR YEARS ON MY ACCOUNT ARE NOW NOT...
DEFINITELY...SURE...LET ME LOOK...MAJ GARCIA...YEAH I SEE HERE THAT...YES EVERYTHING SHOULD BE FINE AND HAD BEEN FINE BUT WAIT...WAIT...YOU CHANGED YOUR ROUTING NUMBER.
I DID NOT... I HAVEN'T TOUCHED THAT ACCOUNT FOR MONTHS....
IT LOOKS LIKE YOU MODIFIED THE ROUTING NUMBER ON THE 28TH OF LAST MONTH...FROM A PUBLIC COMPUTER...ALL SECURITY QUESTIONS ANSWERED CORRECTLY.
I WOULD NEVER...NOT THIS ACCOUNT FROM A PUBLIC COMPUTER...
LET ME LOOK AT THE LOG...WAIT...*HUH?*...THIS IS ODD YOU CAME FROM MULTIPLE IP ADDRESSES THAT LOOK....WAIT...CAN I PUT YOU ON HOLD?


WE NEED TO TALK ABOUT THIS... IF WE DON'T GET THE ACCOUNTS SWITCHED OVER WHILE YOU'RE GONE... YOU REMEMBER WHAT HAPPENED LAST TIME...
BREEEP BREEEP
HOUSE, ANSWER PHONE!
THIS IS AN AUTOMATED CALL FROM DR. LY'S OFFICE REGARDING YOUR LAST PHYSICAL... PLEASE CALL OR VISIT IN THE NEXT 24 HOURS TO SCHEDULE A FOLLOW UP MRI TEST...
WHAT DOES THAT MEAN? AN MRI? THAT'S NEVER HAPPENED? WHAT HAPPENED?
I DON'T KNOW... I DON'T KNOW WHAT IT MEANS.
I NEED TO GO IN AND FIND OUT...


MAJOR... YOU HAVE A RED CROSS MESSAGE.
THANK YOU, SIR... I CAN'T IMAGINE...
RED CROSS MESSAGE
Brother Donald requests SM EM LV due to removal of children from home by protective services. Pending investigation of guardian. Confirmed with CPS. Children location in group home. SM not aware. Brother requests SM call immediately!
CLOSE
REPLY
WHAT? I DON'T UNDERSTAND... MY KIDS ARE IN PROTECTIVE SERVICES...
WHAT CAN I DO TO HELP?
DOC, GOT THE NEXT ONE...
WHAT CAN I DO... HOW DO I GET BACK HOME? CAN YOU...
WHAT DO YOU NEED ME TO DO?


IS THAT SERIOUS? THAT SOUNDS SERIOUS...
I'm sure we'll be able to handle it...
let me give them a call...
REPLY
I CAN'T DEAL WITH THIS RIGHT NOW... CAN YOU...
UN
WHAT AM I SUPPOSED TO DO...


THE FIRST ATTACK WAS THE WORST. UNDER MANNED AND DISTRACTED, THE GATE WAS EASILY BREACHED. A FOUR HOUR GUN BATTLE FOLLOWED...

BREAKING NEWS
ONLINE
Hack compromises millions of US employee and military personnel records.
Four recent breaches of U.S. government databases containing personnel data exposed sensitive information of millions, authorities say...
NEWS
World
SPECIALISTS CONTINUE TO PREPARE DURING DELAYED UPCOMING DEPLOYMENT.
WAITING TO DEPLOY, SPC. ELLIS, AN EXPLOSIVE ORDNANCE SPECIALIST HELPS DEACTIVATE AN IMPROVISED EXPLOSIVE DEVICE DURING A SIMULATED SCENARIO.
BANKS NEED TO DO BETTER PROTECTING MILITARY FAMILIES, RECENT INCIDENTS SHOW.
MILITARY MEMBERS AND THEIR FAMILIES FACE UNIQUE CHALLENGES WITH BANKS. ON DEPLOYMENT, AN ERROR WITH SOMETHING AS SIMPLE AS A DIRECT DEPOSIT OR AUTOMATIC PAYMENT CAN MEAN HOURS OF WORK TO FIX.
FIND
US troop deployments to "Child Slave Miners" crisis delayed again.
U.S. military assistance for the Child Slave Miners relief efforts has been delayed the Pentagon said on Thursday.
14:15
LIVE


THEY BREACHED THE FRONT GATE. THE DEFENSE FORCES ARE WEAKER THAN WE ORIGINALLY THOUGHT. IT SEEMS TO BE WORKING.
LET'S SEE IF WE CAN RAMP UP THE ACTIVITY IN THE SOUTHWEST OF THE US. THERE'S MORE ACTIVITY THERE... LET'S SEE WHAT HAPPENS...

AFTERWORD

As the number of personal devices connected to the Internet of things proliferates throughout the world, it causes the amount of personal information contained in this network to grow exponentially. The adoption of mobile networked devices by the global population promises to provide users with ubiquitous and efficient access to an increasing number of convenient online services. These services will require individuals to expose more of their personal information across potentially vulnerable networks in the future.

As illustrated in this story, the rapid growth and use of the Internet of things not only exposes individual members of society to attacks by subversive actors or groups, but presents an existential threat to entire organizations.

Could the U.S. military have prevented the attack presented in this scenario? If so, how? How do military organizations, as well as academic and commercial enterprises, implement policies, procedures, and technologies that educate their members and prevent these sorts of attacks in the near future?

First Edition: 2018