TO SAVE TOMORROW

WELCOME TO THE FUTURE - WHERE TECHNOLOGY WILL TRANSFORM EVERY ASPECT OF HOW AND WHERE WE WORK. BUT WHAT KIND OF FUTURE WILL IT BE?

WHAT WILL PHYSICAL SPACES LOOK LIKE WHERE WE LIVE, WORK, AND PLAY?

HOW WILL WE WORK SIDE BY SIDE WITH ROBOTS?

WHAT JOBS WILL PEOPLE DO AND WILL THEY BE MEANINGFUL?

HOW DO WE MAKE SURE THAT THE FUTURE INVOLVES EVERYONE?

THE FUTURE IS REALLY UP TO US. STAY TUNED AS WE EXPLORE HOW WE MIGHT SHAPE THE FUTURE OF WORK...
Who Will Be the Worker of the Future?
Kate O’Keeffe, CHILL Senior Director

For decades, we have imagined the future through the eyes of comic book heroes – from boy-next-door Peter Parker’s Spider-Man to Amazon princess Wonder Woman. As we approach our next Cisco Hyperinnovation Living Lab, focused on the Future of Work, I thought we might explore that part of our future in the same way.

The Future of Work is a huge topic. How will we attract and retain the worker of the future? How can we leverage the latest technology to augment the worker of the future? What will the workplaces of the future be like? It’s the subject of conferences, white papers, speculation, pontificating, and hand-wringing. Yet with all the talk, most of us have a hard time picturing the future in a way that brings the all high-flying ideas down to earth. We’re not wired to imagine what the world might be like in ten or twenty years time... maybe such a long-term view wasn’t helpful for us back when we were cavemen...

That’s why we’ve chosen to literally paint a picture of what the future will be like.

In my work with Cisco’s Hyperinnovation Living Labs (CHILL), I’ve found science fiction prototypes to be a useful tool. In this case, it’s a story based on extensive research of trends, technologies, economics, and cultural change. These prototypes make it easier to visualize the future in a concrete way so that we can more easily identify areas that are ripe for innovation.

That is what this comic book is about. It’s a way to imagine the future so we can then create the future we want. My team is currently designing a cohort of corporations who will come together to design the future of work—a Future of Work Living Lab – where we will design and jointly invest in innovation we feel will create this future. But first... let’s meet Gail our Superhero and come to understand some of the challenges that face us in the Future of Work.

Additional Reading:
World Economic Forum: Technology and Innovation for the Future of Production
HBR: Who Can Fix the “Middle-Skills” Gap?
Forbes: Pros And Cons Of Having A Distributed Workforce
WE BEGIN OUR EXPLORATION OF THE FUTURE OF WORK AS GAIL, OUR SUPERHERO-IN-WAITING, BEGINS HER NEW JOB....

GAIL, WE'RE ALL SO HAPPY YOU DECIDED TO JOIN US HERE AT VALLEY VITAL.

I'M EXCITED TO BE HERE. I THINK THE SUSTAINABLE ENERGY WORK YOU'RE DOING IS REALLY IMPORTANT.

YOUR SCORES FROM VALLEY COMMUNITY COLLEGE WERE SO GOOD WE JUST HAD TO RECRUIT YOU.

THIS IS WHERE YOU'LL WORK. YOUR FIRST ASSIGNMENT IS THE NORTHERN BEACH WIND FARM LOAD MONITORING AND MAINTENANCE. THE REST OF THE TEAM IS REMOTE.

MY LITTLE BOY BOBBY WOULD LOVE THE ROBOTS HERE.

WE'LL BE FOUR IN A FEW WEEKS.

HE'S A CUTE LITTLE GUY. WE HAVEN'T CARE HERE ON SITE WITH THE OTHER COMPANIES IN THE BUILDING.

THAT'S BOBBY'S BABY SITTER... WOULD YOU EXCUSE ME?

SURE, NO PROBLEM. I'LL JUST WAIT HERE.

I ONLY JUST WALKED INTO THE BUILDING. DUNCAN, I'M GOING TO NEED MORE TIME.

YOU DON'T HAVE MORE TIME. GAIN ACCESS TO THAT LAB IN THE NEXT 48 HOURS OR WE LEAK YOUR EMBARRASSING LITTLE VIDEO. DON'T TRY MY PATIENCE.

WHO IS THE MYSTERIOUS DUNCAN, AND WHAT KIND OF THREAT DOES HE REPRESENT? FIND OUT MORE IN OUR NEXT INSTALLMENT....
The Promise and Peril of the Augmented Worker

From iRobot to R2D2 to Star Trek’s Data, the concept of robots and humans working together has always been part of the science-fiction world. Philip the co-bot carries on this tradition as we continue our comic-book vision of the Future of Work.

For years, robots have taken on repetitive, dangerous, or heavy jobs in auto assembly plants and other manufacturing settings — but always fenced off from humans for safety reasons. Now collaborative robots — or co-bots — are working side-by-side with human workers. They may do anything from flipping burgers to moving goods around a warehouse. But one thing is certain: human-robot collaboration is here to stay.

Will there be uncertainties as humans and machines evolve together? Of course. In fact, one reason we’re doing this comic book series is to help us think in a concrete way about potential pitfalls. By envisioning various versions of the future, we can help create the future we want.

How technology can augment human workers is just one of the concepts we’ll be exploring in our living lab on the Future of Work. The CHILL team, Cisco’s innovation catalyst, is currently assembling visionary companies to join us for two days of rapid innovation to help design the Future of Work.

Now let’s rejoin our heroine Gail, as she deals with her own set of uncertainties….

Additional Reading:
NYT: Meet the People Who Train the Robots (to Do Their Own Jobs)
Fast Company: How The Rising Gig Economy Is Reshaping Businesses
GAIL’S NEW JOB HAS A SATISFYING BEGINNING—
BUT WILL PRESSURE FROM DUNCAN BRING A PREMATURE END?

GREAT FIRST DAY, GAIL. YOU REALLY HAVE A GRASP OF IT AND WORKING WITH THE CO-BOYS UNDER YOU AND PHILIP. THE NORTHERN BEACH OUTPUT HAS NEARLY DOUBLED.

THANKS, THE SYSTEM IS REALLY POWERFUL, AND COORDINATING WITH THE REMOTE WORKERS HAS BEEN SEAMLESS... I’VE NEVER WORKED WITH A BUT THAT’S AS FAST AS PHILIP!

BEEP - BEEP - KILLING

YOU HAVE 24 HOURS - DUNCAN

WHAT AM I GOING TO DO? I HAVE TO FIND THAT LAB NOW...

PHILIP, KEEP AN EYE ON TURING AREA. THE OPTIMIZATION IS ALMOST DONE. I’M GOING TO TAKE A QUICK BREAK AND GET SOME TSA.

THANKS FOR BRINGING ME ON TO THIS PROJECT. THIS HAS BEEN A GREAT big.

THE INTERNAL TEAM REALLY BENEFITTED FROM YOUR EXPERTISE. POST ON THE PROJECT BOARD SO WE’LL KNOW WHEN YOU ARE AVAILABLE AGAIN.

NO ONE HERE SUSPECTS ME...I DON’T EVEN KNOW WHERE THE LAB IS OR HOW TO GET IN...

THESE SECURITY LOSES TIGHT. I’M DEFINITELY GOING TO REG PHILIP TO GET IN.

WHAT’S IN THE LAB THAT’S SO IMPORTANT? WILL GAIL BE ABLE TO BREACH THE 2-POINT SECURITY? STAY TUNED...
The Evolving Workplace

Office workers of the mid-20th century would not recognize how we work today. They banged out documents in triplicate using manual typewriters and carbon paper. They had to wait for a live operator to connect their phone calls manually. Their hours were fixed and non-negotiable. How could they have imagined word processors, printers, and powerful hand-held computers delivering live video as a part of their daily lives?

Where we work has evolved in some unexpected directions as well, reflecting the transformation of who we are in the workplace. It began with factory workers moving off the factory floor as knowledge work and services grew out of the first industrial age. We designed cubicle farms, with office workers lined up almost like production lines. Then, as collaboration became more important, we moved to open office environments with the aim of becoming better communicators. And now, we are entering the era of the borderless office, a flexible work space not constrained by geography or organizational structure. Virtual teams work together seamlessly all over the world, brought together by video and conferencing technology that is so ubiquitous we don’t even think about it. We have become a more diverse and inclusive workforce, and our workplace reflects that, enabling greater collaboration and creativity. My own team stretches from the Bay Area to Dubai to Singapore, working together across the globe without a hitch.

As we continue to imagine the future, we see a blending of face-to-face and remote work flowing together seamlessly. We see technology releasing the physical limitations of disabled workers, opening up a vast pool of talent and providing new opportunities for workers and employers alike. We see communications becoming more immersive and more mobile. And we see a fluid blending of human and artificial capabilities that enables the best of both, elevating every worker into a knowledge worker. Indeed, our workplace both reflects who we are, and enables who we can and will become.

Meanwhile, let’s follow our future worker Gail as she continues to struggle with a personal crisis of conscience…

Additional Reading
MIT: This $40,000 Robotic Exoskeleton Lets the Paralyzed Walk
NBS: Five Ways the American Workforce Can Prepare for Automation - NOW
atd: Blended Learning Is Better than Instructor-led or Online Learning Alone
UNDER PRESSURE FROM A BLACKMAILER,
GAIL STRUGGLES TO OVERCOME LAB SECURITY - AND HER CONSCIENCE.

YOU MUST GAIN ACCESS TO THE LAB TODAY THINK ABOUT WHAT THE VIDEO WOULD DO TO BOBBI...

THE ONLY WAY FOR ME TO GET THROUGH THE LAB'S TIGHT SECURITY IS TO STEAL SOMEONE'S AIR ATT AND USE PHILIP TO GAIN ENTRY...

OLD MRS. SMITH, HOW'S THE WEATHER IN FIO?

IT'S A BEAUTIFUL DAY HERE, HOW'S SAN FRANCISCO?

A LITTLE CLELY AS USUAL, BUT LISTEN I WANTED TO THANK YOU FOR PUTTING IN THE EXTRA EFFORT ON THIS PROJECT.

I'LL BE RIGHT DOWN TO THE SITE, I'M JUST LEAVING NO NOW, WE'LL GET THE TURBINE RUNNING RIGHT AWAY...

GREAT! PASS ME DOWN WHEN YOU ARRIVE...

DO YOU WANT TO COMMUTE TOGETHER TO THE WORKSHOP AND AND DARRYL'S BIKE?

SURE! WE'LL HAVE TO HURRY... THE NEXT HYPER LOOP LEAVES IN EIGHT MINUTES...

HE LEFT HIS AIR ATT! THIS IS MY CHANCE!

COME ON PHILIP,... LET'S GET INTO THAT LAB...

CAN I REALLY GO THROUGH WITH THIS...? WHAT CAN STOP GAIL FROM DOING DUNCAN'S BIDDING?

FIND OUT NEXT TIME...
It’s about Transformation and Choice

Whatever you think the future might bring, one thing is certain—it will bring transformation and choice. The transformation is certain—it’s already here and accelerating. But how that transformation takes shape is still our choice.

This comic book prototype of the Future of Work has been one way to imagine some possible scenarios: How can we shape a future that is human-centered, inclusive, and diverse? Can we design artificial intelligence and robotics solutions that augment human workers, rather than replace them? How can we use technology in a thoughtful, humane, and ethical way? What would it mean to empower “gig” workers to create their own flexible, portable jobs, with a reasonable expectation of steady wage growth, stability, and affordable benefits?

We’ll be diving deeper into these questions and developing real solutions to help shape the Future of Work at our next Cisco Hyperinnovation Living Lab event in February. I have a growing sense of excitement as I see the cohort of innovation partners for this lab begin to take shape. They are leading companies with the power to influence the transformation of their industries.

Meanwhile, let’s rejoin our comic book hero Gail, as she faces her own choice—and transformation.

Additional Reading

CNBC: Elon Musk: ‘Robots will be able to do everything better than us’
Guardian: The Next Generation of Work
Huffpost: Why Stephen Hawking and Bill Gates Are Terrified of Artificial Intelligence
As Gail enters the innovation lab, she is faced with a stark choice...

**Duncan:** I have access to the lab... Philip, wait here and keep watch.

**Gail:** That must be it... Valley Vital’s experimental new energy source.

**No wonder Duncan wants it so badly...**

**Out of my way... You can’t stop me... Our artificial intelligence is smarter than any brain... Our robots stronger than any person... We are the future of work!**

**No Duncan! Stop there! Philip, help!**

**You don’t have a choice... With this power, our productivity will be unmatched... The opportunities are colossal... You humans will not stand in the way of our robot army...**

**We... the agents of the machine are already in control...**

The alternative energy source connects with Gail and Philip, releasing an immense power surge - connecting them and transforming Gail...
I began this series with the idea that creating a science fiction prototype would be a useful tool in imagining, and planning for, the Future of Work. I have found it helpful to envision future scenarios where a mobile, flexible work force collaborates seamlessly with each other and with intelligent robots – whether in person at the office, or via holograms and immersive video from a remote field location. It’s been good to explore how the future might make meaningful work more accessible to more people – whether through assistive technology or alternative training programs.

And it’s also been valuable to explore the darker possibilities, where automation destroys our jobs, blackmail opens the door to a security breach, and (as Elon Musk fears) artificial intelligence becomes an existential threat.

The truth is, we don’t know what the future will bring. Because we haven’t finished creating it yet. It’s a work in progress, and many people are asking, what kind of future will it be?

This comic book has been a call for a reasoned approach to the Future of Work, grounded in human values and enabled by technology. More than anything, it’s a reminder that we have choices, and we should make them wisely.

Envisioning various future scenarios has also been a valuable exercise as we prepare for our Future of Work Living Lab in February. We are assembling an exciting cohort of industry leaders to innovate together around some of the future’s most challenging issues–another step in creating a future we’ll want our children to live in.

Meanwhile, let’s check in one more time with Gail, who is making her own choices about the future of work – and the world.

Additional Reading
NYT: The Real Threat of Artificial Intelligence
Forbes: Can Artificial Intelligence Unlock Our Full Potential At Work?
MIT: Building better trust between humans and machines
TRANSFORMED BY HER CONTACT WITH THE NEW SUSTAINABLE ENERGY SOURCE, GAIL BECOMES THE SUPERHERO SHE'S ALWAYS BEEN—A CHAMPION OF THE BEST OF HUMANITY AND INTELLIGENT MACHINES.

YOU WILL NOT STEAL THIS... THE FUTURE BELONGS TO PEOPLE.

YOU CAN SEE THE POTENTIAL TOO... CAN'T YOU?

JOIN ME... THINK OF WHAT WE COULD DO TOGETHER... THINK OF THE POWER...

YOU WILL BE RICH BEYOND YOUR WILDEST DREAMS... THINK OF ROBBY'S FUTURE!

NO, DUNCAN... I'LL USE THIS POWER TO MAKE PEOPLE'S LIVES BETTER... HUMANS AND MACHINES TOGETHER CAN BUILD A BETTER FUTURE...

YOU'RE THE FOOL... YOU'VE WANTED SO MUCH POTENTIAL...

COME ON BUDDY, LET'S GET YOU PATCHED UP... WE HAVE A LOT OF WORK TO DO... DUNCAN WON'T BE GONE LONG...

PLUS, HOW ARE WE GOING TO EXPLAIN THAT HOLE IN THE WALL!!

GAIL AND PHILIP ARE NOT ALONE... WE ALL HAVE A LOT OF WORK TO DO TO SHAPE A FUTURE WE WANT TO LIVE IN, A FUTURE OF LIMITLESS POSSIBILITIES.
Cisco Hyper Innovation Living Labs, or CHILL for short, is a capability that brings together an entire ecosystem of companies to drive co-innovation through Living Lab experiences. These 48-hour pop-up labs create new market changing opportunities for our businesses to explore and capture. Labs include the use of human-centered design and rapid prototyping with dozens of end users testing to create and validate new solutions. The labs culminate in direct investment in new opportunities with each other, driving significant leaps in co-innovation. From previous labs, Cisco continued numerous projects with our collaborators which has strengthened our relationships with them and created exciting new market opportunities.

Our next lab is Feb 27-28 on The Future of Work. Are you in?

AreYouIn@cisco.com

https://vimeo.com/hyperinnovation