Tech Resilience video pack: transcripts

How can I build my tech resilience?

The tech industry is an exciting place. We make it possible to access tools from anywhere, improve the way teams collaborate, refine the developer experience. But as a person at the forefront of this excitement, we will encounter challenges. We might not think of ourselves as writers, and we will have to learn how to write clear documentation. We may not have worked much with a diverse team, and we will have to learn how to communicate and collaborate effectively with others. And of course, we will face bugs and frustration. And in these moments, you can pause and ask yourself, "How can I build my tech resilience?"

We each approach challenges differently, and we may find some easier to overcome than others. But what all of us can do is tap into and build our resilience--our capacity to recover quickly from setbacks and difficulties. Decades of research on building resilience supports this.

And we actually practice resilience every day. We tune into ourselves to identify what might be holding us back. We use different perspectives when approaching a situation, we try out multiple solutions and see how well they work, we reach out to others for guidance and feedback and work collaboratively to move forward.

The series of videos that follow will provide you with strategies and concepts to continue building your resilience. The videos will encourage you to pause and notice where you are in your journey, remind you of how far you have come and what you can try when you encounter your next challenge.

Resilience is not a trait that only certain people possess, it is something that all of us have, can tap into, and importantly, practice. By taking the time to reflect, you may find connections between the challenges in your journey and those you have overcome before, and that you can continue to overcome them. Developing resilience will not only improve how we build technical skills as individuals, but also improve how we collaborate to make tech a better environment for everyone.

What are we talking about? [Active Listening]

Have you ever been part of a conversation where everyone seemed to be talking about different things? You may have found yourself thinking, "What are we talking about?"

You've probably been told that communication skills are crucial, but research has shown that communication is much more than getting your point across. Communication is about listening, not just about speaking. Which means setting aside your voice and focusing on what the other person is saying. When we effectively listen to each other and consider the other's perspective, we can feel connected, supported, empowered even, and more prepared to move forward.

On the other hand, interactions where you don't feel taken seriously or where it seems like other person just doesn't care can leave us feeling deflated, confused, even minimized. This not only can hurt our relationships, but can also get in the way of us from producing our best work.

So how can we work to better understand one another? One crucial skill is active listening, which requires giving someone our full attention to understand what they are saying from their perspective. When you engage in active listening, you are not listening to find weaknesses or ways to respond, you are listening to understand.

For example, if a teammate questions something you said, you might start to feel defensive and insist that their critique and interpretation was not your intention. But what if you chose to listen with purpose instead, which you can do by creating the space to listen, by acting as a mirror to make sure you're on the same page, and by trying on their perspective to seek understanding.

[Being open] When there is a disagreement, you can create space by pausing and slowing down to notice what you are feeling, and focus on listening actively instead.

[Mirroring] You can act as a mirror by clarifying what you heard. By asking "Can I repeat back to make sure I'm with you?", we are not only signaling that we are listening, but also ensuring that we understand correctly.

[Perspective taking] We can try on their perspective to gain a deeper sense of where they're coming from. We may still disagree with what they're saying, but the goal is to see the situation from their vantage point. When we practice active listening, we might not have an immediate response when they finish speaking. Instead of immediately jumping to a conclusion or giving advice, we can take the time to reflect on their words and digest their point of view. And as we form a response, we can continue to consider their perspective and how our response might impact them. A well intended message can still come across otherwise.

This week, when you find yourself asking, "What are we talking about?" -- are you listening with purpose? Are you creating space to listen and trying on other perspectives? Collaboration is not about avoiding disagreement or conflict -- and by truly listening to understand one another, we can build more meaningful relationships and collectively feel empowered to achieve more.

Can I do it? [Self-efficacy]

You know how there are some things you feel like you can confidently accomplish? And how there are some things that make you wonder "Can I do it?" because you think you aren't good at it, even if you do have some skill?

The belief in your own ability to succeed in a particular task, subject, or area is called self-efficacy. When you have high self-efficacy in something, you believe you are capable of accomplishing the task and feel motivated to engage. This allows you to spend more time on it practicing, and finally getting better at it. But when you have low self-efficacy in something, you may think "I'm not really good at this… this feels impossible" and you don't feel motivated to start, practice, or finish the task. Your self-efficacy can also vary in different contexts. For example, you might have high self-efficacy when you are presenting to a group you are comfortable with, and have low self-efficacy when you are presenting to others. And here's the thing about self-efficacy. It is a perception of your ability, which might be completely inaccurate. You can be incredibly competent but still have low self-efficacy. For example, you might have created many exciting personal projects before, but still feel very hesitant to work on an open source project because you think you still aren't good enough to contribute.

Having low self-efficacy often occurs when someone starts something new and, compared to others around them, they think that they are taking a longer time to learn and improve. However, our self-efficacy is shaped by our past experiences and often comes from having done the task many times before. And everyone has different experiences, especially in tech. But when we look at the people around us, it isn't easy to see how vastly different everyone's experiences are, and we may slip into thinking we are not as good as others at this moment.

But research shows that self-efficacy, this belief in whether you can succeed in a particular area, is one of the most important influences in our ability to persist in learning and problem solving. It is often even more important than your existing skill to execute the task.

So, how can you increase your self-efficacy? You can start by tuning into yourself, noticing small successes, and learning from others. We can pay attention and notice when we have low-self efficacy and change that internal dialogue. We can also give ourselves the opportunities to achieve small successes; by continuing to practice, even when things are difficult. We can learn about how others have struggled and succeeded at similar tasks; and get feedback from those with more experience and skill, who can help us develop new strategies and improve.

Self-efficacy levels affect our behavior everyday: from how willing we are to learn a new tool to how much we feel like we belong in tech. So what are some areas in which you have low self-efficacy?

This week, try and notice low self-efficacy in yourself or even others What could you do to improve it? And when you do notice it, remind yourself that self-efficacy grows with experience and persistence through challenges.

Is it possible for me to do this? [Mindset]

Think back to the last programming project you felt accomplished completing. At the start, you might have thought, "Is it possible for me to do this?"

And, whether it was for personal interest, a class, or your job, you may have: given yourself time to become familiar with the necessary tools and become good at them; tried different approaches until you got the results you wanted; enjoyed solving the little challenges that came up; and wanted your peers' feedback on your ideas. This mindset is known as the growth mindset. It is the mental attitude that our basic abilities can be developed with dedication and hard work. In other words, with a growth mindset, we believe we can learn anything we do not yet know.

Now consider some other skills, like applying number theory for cryptography, presenting your work to the entire team, writing clear documentation and pull request descriptions, or managing a large team. For some of us, thinking about doing some of those things might cause some kind of discomfort. We might think " Someone else can do that. It's just not something I could ever do." Or find ourselves worrying "what if people think I am unintelligent" or "what if I fail in front of everyone?" This self-talk can signal a fixed mindset, which is the mental attitude that our basic abilities like intelligence and talent are fixed traits. With a fixed mindset, you might find yourself saying, "I can only do certain things, and this is or isn't one of them." and view situations as tests that reveal which abilities you were born with.

With a growth mindset, however, you might view that same situation as an opportunity to learn and develop your skills. 20 years of research has shown that adopting a growth mindset can have a profound impact on every aspect of our lives. And similar to our abilities to learn new things, it is possible to change your mindset. Here's how. Be self-aware of your internal dialogue. Strive for progression instead of seeking to produce perfection. Learn from others as you develop your skills.
- [Be self-aware.] By being aware of your own thoughts, you might notice self-doubt about doing things outside of your comfort zone. But you can redirect your focus to learning and improving instead. If we stopped thinking "I'm just not a people person," or "I'm not a theory person," and instead "I can get better at it if I practice enough" or "This is a chance to develop my skills", we give ourselves the chance to even try in the first place.
- [Progression, not perfection.] And when you do try, look beyond your results. Recognize your progress and growth by comparing to where you were before, and celebrate your perseverance -- how you kept going even when it was difficult.
- [Learn from others.] You can learn from others. Don't be afraid to reach out for help and guidance. Remember, every expert was once a beginner.

This week, notice where you have a fixed mindset or a growth mindset. And the next time you wonder, "Is it possible for me to do this?", even when the answer is, "Not yet.", you can pause to see how far you have come. And by embracing a growth mindset, you just might surprise yourself with what you can accomplish!

Is this for me? [Belongingness, Part 1]

Have you ever tried to use a tech tool and thought, "Is this for me?"

Maybe it was hard to work with. And you may have even felt so frustrated that you walked away from it altogether. Or, maybe it came with a good guide that made you feel like the tool was designed with you in mind. And maybe you were even invited to suggest a new feature. By welcoming you and taking you seriously, this might have contributed to your larger sense of belonging as a person in tech.

Your sense of belonging is the feeling of whether you are being respected and valued. Decades of research show that feelings of belonging allow us to be more motivated to persist through challenges. But there are times when we doubt our belonging -- what can we do to increase our sense of belonging then?

First, we can notice where we feel a strong sense of belonging, and where we feel like we are trying too hard to fit in or do not feel valued for who we already are. And, although belonging is felt within ourselves as individuals, it is the messages that our surrounding environment sends us that contribute to our sense of belonging. Sometimes we enter a space and feel like we need to change who we are to fit in, maybe it's because those in the space treat us differently or don't give our ideas the same respect. These messages move us further away from the task at hand and discourage us from making contributions, some of us may even decide to leave the space entirely.

But! even when we're missing that sense of belonging, we can recognize that our contributions are still valuable. And often there is someone who is eager to support us. That support is what fosters inclusive environments where people are more likely to feel a sense of belonging, which we need in tech to attract and retain the variety of perspectives needed for creating truly impactful solutions for all.

Is this for me? [Belongingness, Part 2]

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So, how can we cultivate an inclusive environment where everyone feels respected and valued? We can get started by creating a welcoming space, being open to different perspectives, taking people seriously and practicing active listening, and being conscious and intentional of the space and airtime we are taking.

[welcome tip] We can realize that even if we feel "at home" and valued in a space, this may not be the experience for others. Perhaps we can be the person to help someone strategically navigate difficult terrain.

[open to perspectives tip] We can recognize the value of others' perspectives and ideas.

[take people seriously/actively listen tip] We can take on the perspectives of those around us and ask ourselves, "do they feel respected and valued?", and be proactive to consider the messages and signals we are sending in our interactions.

[step up/back tip] We can be intentional in deciding when it's time to step up to contribute and when to step back to make room for others. We can examine our own assumptions and biases, and notice if we might subconsciously view some people differently.

This week, notice your sense of belonging in different spaces -- where do you feel "at home"? In your collaborations and community, notice who is being taken seriously and ask yourself, are there missing perspectives? How are you contributing to the belonging of others?

We can change our behaviors to foster an inclusive environment and create a greater sense of belonging for everyone, to ensure that all of us--with our varying backgrounds, experiences, and knowledge--can contribute.

How can I do this strategically? [Self-regulation]

Have you ever tried to start on something but struggled, hit a roadblock, and thought "how can I do this strategically?"

You may have heard of the term metacognition. It's the awareness and understanding you have of your own thought processes. So it's really, how you think about your thinking. Because the impact of having metacognitive skills is so robust, it has been one of the most researched topics in learning for the past 40 years.

You can think of metacognition as a flashlight that allows you to navigate through your thoughts. Without metacognition, when faced with something new or challenging, we might engage in haphazard guesswork, or focus only on how much time we spent, rather than paying attention to what exactly we did, which can lead to feelings of frustration or a lack of confidence in our abilities.

This is why developing our metacognitive skills is a crucial first step in being strategic. We can then employ an iterative process, where we create a plan, try it out and, evaluate by asking- did it work?. This helps us revise the plan and repeat the process!

Researchers call this cycle self-regulated learning, which strategic, effective learners intentionally practice. So, without metacognition, learners, unaware of their thought process, cannot self-regulate.

So how can you exercise your metacognition and self-regulate when you encounter your next challenge? Pause and notice how you are approaching the problem. Are you being strategic? Start by coming up with a plan. If you're stuck, you can find out what has been tried before. You can keep a log or record of how you spent your time, what you tried, and what the outcomes were. You can seek help from others. By talking with someone with more experience, you might find something to practice, look up, or try differently. You can also get feedback on your approach by sharing your log or record. When faced with a large challenge, we can be strategic by breaking it down into smaller tasks. We can work on it piece by piece, and perhaps with the help of others, we'll manage to figure out where to go next or find what is wrong.

While we are often motivated by a big goal such as finishing a difficult project or even a long-term goal like becoming an artist, a software engineer, or a public speaker, we need to remind ourselves that we can be strategic. So how do you assess your progress?

This week when you find yourself stuck on something, stop and reflect on what is or isn't working. Write it down. Your metacognition--this awareness of how you are learning or doing something--is what will allow you to be strategic and self-regulate to iteratively plan, try, and evaluate.

What can I do to get through this? [Emotional Intelligence]

Have you ever been stuck trying to fix a bug when there is a looming deadline, and despite feeling frustrated, anxious, or panicked, you thought, "What can I do to get through this?"

If you have, then you are showing signs of emotional intelligence. Emotional intelligence is defined as: One's ability to identify, name, and regulate emotions. You are probably familiar with how people sometimes use IQ as a way to refer to someone's traditional intelligence. For short, one's emotional intelligence is called one's EQ. A person with high EQ, can first recognize their frustration, anxiety, and panic, before finding a way to calm down before moving forward. A person with low EQ, on the other hand, might be unable to recognize or manage their emotions, and in turn might lose motivation and avoid the task completely, or take their emotions out on themselves or even others.

While technical knowledge certainly matters, research shows that developing our EQ is crucial for success in our learning, career and other endeavors. But just like any other skill, we can develop our EQ through practice. Start by stepping back so that you can approach the situation strategically by noticing what you're feeling and coming up with a plan for how to respond. Practice being aware of your emotions. Recognize that you are feeling an emotion, even if you don't know its exact name. It could just be "I feel like mush" or "I feel like I'll never get this". However you decide to name your emotions, acknowledging how you feel is the first step to getting through the challenge. After that, you can start planning what to do next. When feeling overwhelmed or frustrated, you could take a moment for yourself, write about it, or seek support and feedback from someone you trust when you are ready. Emotional intelligence can also help us get through challenging moments that arise when working with others. Technical knowledge alone will not move a team forward.

So how can we develop our EQ to make us better collaborators and get through challenges? One important strategy is to practice taking different perspectives. You can do this by demonstrating empathy and engaging in active listening. If a teammate is struggling to finish their part of a project, you might be aware you feel a little annoyed. But instead of getting derailed by your emotions, you could see the situation from their perspective by practicing empathy and work on your active listening to focus on what your teammate is struggling with. Practicing these strategies of perspective taking not only improves your EQ, but also helps you and your team find a way forward.

So with all that said, developing your emotional intelligence isn't about ignoring your emotions. It's a way of gaining agency in a difficult situation so that you can effectively and constructively move towards solving the problem at hand.

This week, stop and notice the emotions around you, whether they are your own or those of others. Remember, tuning into your emotions can be just as important as working on the tech itself. So take the chance to practice your EQ the next time you find yourself saying, "What can I do to get through this?"

[Where do I go from here? [Cognitive Flexibility]](#)

It is probably safe to say that most of us in tech have tried an approach to solving a problem before, only to have it fail entirely. In such moments, not wanting to give up, we ask ourselves "Where do I go from here?"

And at this point, as we try to adapt and pivot, we are using something called cognitive flexibility. The word 'cognitive' comes from a Latin verb that means 'getting to know' or 'knowledge'. So cognitive flexibility refers to the ability to learn or use knowledge in ways that reflects being adaptive and open to change. When faced with an unexpected setback, someone without much cognitive flexibility--not adapting to the situation--might attempt to do the same thing again and again and keep failing, which can make it difficult to persist. On the other hand, by thinking about the situation differently and generating multiple solutions, someone who has more cognitive flexibility will be open to new ideas and stretching their problem-solving approach to adapt.

It can be hard to anticipate every outcome, and research shows the ability to adapt is a core piece of creative problem-solving. When faced with a roadblock, we can pause and remind ourselves that we have overcome all kinds of challenges before, and we absolutely can again.

And how can we better stretch ourselves to adapt? We can do this strategically by being open to new ideas, seeing different perspectives, and coming up with multiple solutions. We can ask ourselves to be open to trying something new, even if it means changing our original plan completely. Doing this can help us better position ourselves to pivot. Viewing the situation in new ways by perspective taking will help us create different solutions. Seeking different vantage points might mean moving out and around instead of focusing and narrowing the problem further. Or it might mean taking a closer look at an earlier choice and even abandoning our current path for a different approach altogether. This can be hard, but remember that you can always get help from others. A fresh pair of eyes can provide us with another perspective and solution.

So when we face an unexpected setback and need to pivot, collaboration becomes especially valuable and can set the stage for improving your cognitive flexibility. A team with a diverse set of backgrounds and experiences is better positioned to see the situation from many perspectives and can come up with a variety of solutions. But if your team misses out on those perspectives, it's harder to innovate new solutions.

So the next time you hit an unexpected setback and wonder "Where do I go from here?", remember that you can exercise your cognitive flexibility -- you can stretch and adapt.
This week, when you encounter an unforeseen challenge, pause, and remind yourself that you can approach it strategically if you stay open and confident. Try looking at it from a different perspective, and always be open to new possibilities to generate new possibilities and solutions.

[Where did that come from? [Giving and Receiving Feedback]](#)

Have you ever received feedback that was phrased in a way that made you feel a little confused or hurt? Or perhaps you received feedback that made you feel empowered and ready to move forward. In either case, when considering how we give and receive feedback, it is worth asking "Where did that come from?"

Research shows that feedback--as crucial as it is for our growth and development as learners, creators, and collaborators--is not that straightforward. We can think of feedback as a box that can be given in various ways: a box delivered simply with useful tools; a box delivered in a way that considers the recipient's perspective with useful tools; or a box delivered considerately but with nothing at all inside; an empty box delivered without much consideration; or maybe the box is just terrible in every way.

As you might guess, the most effective feedback we can give can be viewed as the box full of useful tools that offer a specific path forward, given in a way that further empowers the listener. So, how can we provide effective feedback? By considering the recipient's perspective and role, we can SIGNAL our intentions--that we take them seriously and genuinely believe they can improve, we can be specific about what went well and what did not go as well--instead of focusing only on what's wrong, and we can provide a clear next step for them to take.

Imagine a situation where a new team member submits their first work for review. And they missed a step. Maybe they did not know about it or were not yet familiar with the team's coding practices. Under a time crunch, we might just deliver an empty box and tell them "This is not great." But to be effective, we should at least provide some suggestions for where to go next. And we should signal that we believe they can meet our (high) expectations. By being specific and giving them concrete steps to try next, this can help the listener be much more willing to engage with the feedback and revise their work.

And what can we do when we receive feedback? We can pause, and acknowledge how it was given to us. We can look to see if there is something useful inside. And even if there is none, we can be strategic in our next steps. We can ask the feedback provider clarifying questions so we can identify action steps, such as "can you please say more about why this approach does not work?" or "Is there another step I could take?". Sometimes, though, the feedback may be just so terrible that you choose to just walk away. Remember, you can always seek feedback from another person altogether.

This week, notice your reaction when you receive feedback, whether you disregarded it or looked closely to unpack it. Also reflect on how you are giving feedback--whether to a friend, a teammate or a family member. Are you signaling your belief in them? Have you given them specific tools to move them forward? Effective feedback can play a huge role in how we solve problems. And if we genuinely want to help someone, then we should take the additional steps to ensure that our feedback is given as effectively as possible.