**Scaling the innovation mindset.**

**Introduction.**

Hi, there.

Saman here again from Google Cloud.

In the last module, we explored business and technical challenges that organizations face on their Cloud adoption journey.

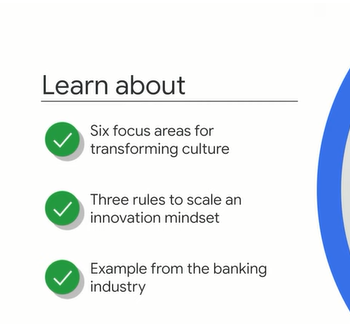
In this module, we'll look at a third challenge, culture change.

At Google, we believe an organization's culture plays a key role in their ability to embrace change and adapt with new technologies.

In this module, I'll start by exploring six focus areas that Google thinks are vital to transforming culture with an emphasis on culture of innovation.

Next, I'll explore three simple rules that help organizations scale the innovation mindset.

Then I'll apply the three rules in a real-world example from the banking industry.





Finally, I'll cover some questions to help you reframe the way you approach your work and how you can adopt an innovative mindset.

Now, regardless of the position you're in, you can use these questions to help you identify innovative opportunities with the Cloud.

Let's get started.

**Focus areas for culture transformation.**

When you see Cloud as a tool to do things the way you've always done them, you risk vanishing into irrelevance.

Using Cloud to do new transformative things means embracing wholesale change.

This change may involve radically rethinking business practices, structures, and even business models so you can better serve your customers globally.

Since forming in 1998, Google has grown from a few guys in a garage to an international organization with over 100,000 employees worldwide.

Along the way, we've done a lot of thinking about how to maintain an innovation mindset, the same mindset that enabled Google's founders to build the Google search engine in the first place.

We've also spent a lot of time helping other companies embrace and nurture an innovation mindset and learn from their experiences too.

We've categorized the learnings by six focus areas that contribute to the successful culture transformation.

They are foundational to creating a fast moving, customer-centric and future-proof business that optimizes its use of Cloud technology.

These focus areas are talent, environment, structure, strategy, empowerment, and innovation.



We need an entirely separate course to cover the details of each focus area.

For this course, I'm going to briefly present each area before focusing on innovation and how it relates to digital transformation.

Talent refers to a holistic view of the people that make up an organization and contribute to innovation.

It covers the entire life cycle from attracting, to hiring, to nurturing, to retaining, to celebrating, and growing the talent.

The ability of people to thrive (*prosperar*) in an organization, especially during major changes, is connected to the work environment.

Environment, our next focus area, means more than just a workspace.

Every program, every perk or service should be designed to enable a culture of innovation and efficiency and ultimately lead to job satisfaction and overall well-being.

That brings me to the next focus area, structure.

Structure is a blueprint for how certain programs and tasks are grouped and how people managing them are led toward a common goal.

Essentially, structure is how a business organizes itself.

For example, how an organization establishes its hierarchy and management levels, and forms teams, and how people access information are all part of an organization structure.

Strategy is how you align people to your organization's purpose or mission.

It is the direction you set, how you measure progress, and how you adapt to new information to achieve your vision.

Next is empowerment.

Empowerment means enabling employees by giving them access to relevant information and encouraging them to use it to take initiative to solve problems and improve the business.

Certain degrees of autonomy, independence, and responsibility can increase motivation, which is central to creating a culture of innovation.

Lastly, innovation is central to embracing new technology.

So let's look at this in more detail.

Innovation, at its core, is about doing something in a surprising new way or discovering something entirely new that adds value.

Whether you're rethinking an existing process or creating a totally new product, innovation involves creativity and ingenuity.

Creating a culture where people can innovate is foundational to embracing meaningful change, adapting to and optimizing new technologies, and most critically, maintaining a competitive advantage in a fast moving world.

However, innovation can't be owned or ordained (*ordenar*), but you can create the environment and the right conditions for innovation to evolve organically.

**The fuel for innovation is a balance between freedom and constraint. (*El combustible para la innovación es un equilibrio entre la libertad y la restricción.*)**

At Google, we strive (*esforzamos*) to give employees the right amount of creative freedom and psychological safety so innovative ideas can scale.

Google typically follows three rules to foster and scale a culture of innovation.

We'll cover these in the next video.

**Scale the innovation mindset.**

In the previous video, I mentioned that Google has established three simple rules that govern its day to day business practice and help to nurture and skill a culture of innovation.

They are;

* focus on the user or the customer,
* think 10x or generate big ideas,
* and finally launch and iterate, which is often referred to as continuous learning.

These principles weren't created by Google. Every company focuses on their customers. Every company expects its employees to be bold and to generate big ideas. Where Google differs, however, is in the way it implements these principles to scale the innovation mindset. We'll look at each one by one.

Let's start with focus on the user.

Focus on the user as a business practice may sound common.

How often have you heard customer-first?

But for us at Google, this focus has two dimensions.

* First, users aren't limited to paying customers or people outside our business. Our employees are also our users.
* Next is user expectation. You need to clearly understand user expectation to think about how you can add value for them.

This is because with the digital age, everyone has become connected globally via multiple devices.

Everyone has acquired the same expectations when engaging with companies.

Here's an example of what I mean by focusing on your customers and their expectations.

When airlines first started offering WiFi on-board their planes, it seemed new and revolutionary and it differentiated in airline companies offering.

Now, it's expected.

Notice that as soon as your customers become exposed to something new that makes their lives easier, it doesn't take long for it to become an expectation.

User expectation, though, can mean a variety of things.

**To help you narrow down the scope of users expectations, consider the following focus areas; access, engagement (*participación*), customization (*personalización*), and communication.**



For each focus area, ask yourself, what is the user or customer expect. By answering the question, you'll make important discoveries about where to invest your efforts.

Let me give you a few examples.

When it comes to access, users expect faster and easier services with always on capabilities that can be accessed anywhere.

In terms of engagement, users are looking for sources of valued content.

They expect up-to-date reliable content from multiple fields of expertise.

From this, you can then learn that engaging multiple fields of expertise in the process of product development is also crucial for your business success.

Next, when it comes to customization, users expect that a product or service seamlessly adapts to their individual needs and preferences.

Finally, users expect to be able to communicate with service providers through a two-way feedback channel.

This means that the company also engages in conversation.

The same is true for your employees.

When assessing what they expect when it comes to communication, you'll discover that they expect their contributions to matter and that their input has a positive impact on the evolution of a product or the company.

To meet their expectations, two-way dialogue is needed between teams and between employees and their leadership.

Take a moment to think, who is your user?

With innovation in mind, is there room to drastically improve or reinvent your products or services by examining your user's expectations?

Now, at first, this level of focus on the user might seem like a bad business decision.

What about ensuring that the business is making a profit?

Believe it or not, there is a different way to look at the problem.

I'll give you an example.

One of Google's primary business models is built around ad sales.

In the past, when users went to Google's site to search for information, they would see company bought ad space on either side of the search window.

By applying the first rule, focus on the user, Google decided to update its user interface design.

This involved removing the ads and showing more information for some search results in order to provide a better user experience.

At the time, 87 percent of Google's revenue came from ad space sales.

This might have seemed like an irresponsible decision.

But Google focused on the user and made the changes anyway because its mission isn't to sell ad space but to organize the world's information and make it universally accessible and useful.

Coupled with the capabilities of the Cloud, Google actually discovered that an improvement in the user experience didn't negatively affect its revenues.

In fact, users have more insight now than they ever did before when they type in just a few letters.

Let me give you an example.

Last Sunday, I was deciding between pasta and sushi for dinner.

I can make pasta, but not sushi, and I was really craving sushi.

At 8:40 PM, I used Google Search and typed in fuki, the name of a local sushi restaurant.

I didn't type the word sushi because geolocation knows I live in Palo Alto and so the search retrieves fuki sushi in Palo Alto.

Immediately, I have a tremendous amount of information.

Photos of the restaurant and the restaurant's hours.

I see its location on maps, which shows how long it will take to get there.

I see in orange font that the restaurant closes soon.

A bar chart generated via Google Map's aggregated user data indicates how busy the restaurant is and tells me that the average wait time is 30 minutes.

At the time of my search, it was 8:40 PM and the restaurant closed at 9:00.

So I knew I wasn't going to get sushi.

This is amazing.

I type in four letters into the Google search bar, and within moments, I know I'm cooking pasta.

Users find this functionality useful so they keep coming back.

Eliminating ads for some searches and using sponsored links instead turned out to be very profitable for Google.

Focusing on the user can help any organization leverage new technologies as they undergo a digital transformation.

Focus on the user is good practice to help you remember what ultimately matters most, achieving your mission, why you exist, not how you operate.

Let's move on to the next rule, think 10x.

**Think 10X.**

10x thinking is about generating big ideas.

It's about transformation over improvement and using technology to achieve that transformation.

**Improvement projects help make things better by perhaps 10 percent, and there certainly is room for improvement projects in every organization.**

But they will not help you scale the innovation mindset.

One great example of a 10x thinker was Henry Ford, an early innovator who brought the automobile to mass market in America.

He said, "If you would ask people what they wanted, they would have said faster horses.

'' Imagine how long it would have taken for the world to experience motor vehicles if everyone thought to only improve what they already had. (*Imagínese cuánto tiempo le habría tomado al mundo experimentar los vehículos motorizados si todos pensaran solo en mejorar lo que ya tenían*.)

This is the 10 percent mindset.

Let's look at a Google example.

In 2008, Google didn't have a presence in Lahore, Pakistan, which meant that a map shown on Google Maps was very limited.

Improvement thinking would have led Google to make only 10 percent additions to the map content over time.

But instead, Google followed the 10x principle and reframed the problem.

How can we use technology to improve the information gaps in our map 10 times faster?

By setting this challenge, Google was able to create a software program called Map Maker that asked its users to map their environment, empowering the user to provide Google with the missing data.

The University of Lahore then launched a contest for students to map their journey from home to school using Map Maker.

In just two years, with the support of users, Google was able to create a highly accurate map of Lahore.

This data became vital in 2010 when there were terrible floods, four million people had to be relocated.

A post-flood study found that 400,000 lives would have been lost without access to maps and the work of those students.

Now, just imagine how long it would have taken to build an accurate map if we had applied the 10 percent thinking.

Would it have even been possible?

10x thinking leads to solutions that are simple, empowering, and deeply transformative.

Just like focusing on the user, thinking 10x helps organizations achieve their mission in new ways and differentiate their offerings from competitors.

Move on to the next video to learn about the third rule.

**Launch and iterate.**

Everything you've learned so far comes together with the final rule, launch and iterate, which is often referred to as continuous learning.

This is a break and burn and fail fast idea that you want to encourage in your company culture.

It gives your employees the freedom to innovate and enables them to apply 10x thinking.

What does it mean to launch and iterate?

**Launch and iterate is both a mindset and a practice where instead of starting off with a perfect solution, you figure it out through experimentation.**

Launch and iterate says, **''Try, learn from the output, and then try again**.'' You can apply the launch and iterate rule to your own work by asking yourself, does my project or initiative support my why?

Am I applying 10x thinking?

How am I to use technology to reframe the problem or find a transformative solution instead of minor improvements?

When you have the answers, start experimenting and building.

Seek feedback quickly, and you might fail the first time, but if you do fail fast, instead of wasting your time, perfecting your idea.

Why?

Because in failure, you learn quickly.

This is the process of innovation.

There's one caveat (*advertencia*) to this rule.

For everyone to launch and iterate freely, it's important to create a culture of psychological safety.

Organizational Behavioral Scientist Amy Edmondson of Harvard first introduced the concept of team psychological safety.

She defined it as a shared belief held by members of a team that the team is safe for interpersonal risk taking.

There's a strong correlation between innovative teams and high psychological safety rates; teammates feel safe to ask questions, take risks, challenge each other and build on each other's ideas.

They feel confident that no one on the team will embarrass or punish anyone else for admitting a mistake, asking a question, or offering a new idea.

When people feel psychologically safe and begin applying the launch and iterate rule into their day-to-day work, the result is the prototyping effect.

The more ideas you try, the more you learn, and the more you'll eventually succeed.

Continuous learning and the ability to adapt based on that learning is critical as you adopt cloud technology for your organization.

One high-profile example of this is Google Glass.

This image demonstrates the evolution of Google Glass.

The brainstorming discussion probably began with someone asking, ''If we can get information to people at their fingertips with a smartphone, how might we enable them to retrieve or receive information hands-free?'' From this, the prototype of the digital glasses emerged.

It went through six iterations before reaching its most recent version.

Very early, it became apparent that there were barriers to adoption for the mass market, cost being one of them.

Another was social expectation, people felt awkward (incómoda) walking around with them.

But Google employees maintain their innovation mindset and their ongoing (constante) curiosity, which led to an interesting discovery.

Although the mass market wasn't ready for Google Glass, which was an apparent failure at the time, there was significant enterprise demand for it.

Imagine you were a surgeon or handler in a warehouse or a repair mechanic for large industrial equipment, hands-free access to information that helps you do your job better is highly valuable, and in those cases, the cost is less of an obstacle.

In July 2017, Google launched the new enterprise edition of Google Glass.

The initial plan to create and mass market digital glasses did not succeed, but teams learned from each iteration evolving and adapting at each stage and responding to customer user feedback, which led to new successes.

Remember, ideas don't have to be limited to hardware or service products.

This way of thinking can also be used for any employee-customer or employee and employee interaction.

You might be thinking, ''Hey, Saman, that's all great, but I can't always apply these in my organization.'' I agree.

Although these principles help to nurture a culture of innovation, they may not always be applicable to every situation and every case.

Still, I want to challenge you to try and apply them even at a small scale.

I'll demonstrate this with an example from the banking industry next.

**Innovation example: Banking industry.**

Let's look at what cultivating and scaling an innovation mindset might look like in a real world situation.

This is Jane, a banker.

Part of her job involves cold calling customers and offering them a new service or product.

She knows, though, that customers are rarely receptive to these types of calls.

Jane's manager chooses a traditional approach and preassigns Jane a list of people to call along with talking points to sell insurance.

What do you think is wrong with this approach?

Well, think about it this way, what's Jane's why in this scenario?

Is it to sell insurance?

No, that's a specific task, not a mission statement.

Does selling insurance meet the three simple rules for day-to-day business?

Is it focusing on the user?

No.

Is it 10x thinking?

No.

Is Jane, as an employee, empowered to innovate in this case?

Probably not.

So let's look at Jane's situation in a different way and apply the three rules.

What is her why?

It's to enable people to live their lives feeling financially secure and optimally prepared for life's inherent ups and downs.

Now we have a why that's a purpose, a mission.

Next, we employ the first rule.

Focus on the user.

Imagine Fred is one of Jane's customers.

He has two young children and is the type of person to plan ahead.

He's starting to think about his kids' future and their education because he realizes it's going to be very costly.

At the most basic level, Fred might need to know how much he needs to save and for how many years so he has sufficient funding to send both kids off to college.

He might also expect that his financial institution can offer him personalized options to achieve this without disruption to his lifestyle.

So Jane would focus her call with Fred on A, discovering his intent or needs, not the direct selling of insurance, and B, helping Fred with investment options.

Now, how can Jane apply 10x thinking to our customer situation to find solutions that are simple, empowering, and deeply transformative?

How can she anticipate Fred's needs and behavior so that she can propose solutions that will help him live life to the fullest and ensure that he is financially prepared and secure for this stage of his life?

Jane and her team can apply 10x thinking to create breakthrough experiences to serve a customer with technology.

Now, ask yourself, how might the capabilities of the Cloud help Jane achieve this?

Well, imagine she has a dashboard that synthesizes multiple sources of data about Fred.

This would give Jane, A, insight about his current situation, B, information to help predict his intent, and C, a list of pre-populated recommendations that she could discuss with Fred.

The capabilities of the Cloud equipped Jane to have a much more focused and meaningful conversation with Fred.

Now she can call Fred and say, "We think now would be a good time to talk about your children and their future education. What are your thoughts on this and how are you currently preparing?"

She might follow up with, "We have some personalized recommendations for you. One of our experts is available to discuss your goals and investment options this week."

Imagine if everyone across Jane's organization embraced this innovation mindset and employed Cloud technology to find innovative solutions.

It would be an important step in the organization's overall digital transformation.

**Try it yourself.**

Embracing cloud technology and cultivating an innovative mindset are not limited to elite data scientists or company leaders.

You can cultivate this mindset in your role, in your team, and across your organization, no matter where you are.

Grab a piece of paper and write down your answers to the following four questions.

First, what is your why?

Write down in one sentence, what your mission statement is, then take this one step further and write down your team's mission and finally, your organization's mission.

Next, who is your user?

What are some ways you're focusing on their expectations and meeting those expectations in your day-to-day activities?

When you know who your users are, ask yourself, how might I use new technology to serve them 10 times better?

Finally, what would it take to launch your first idea?

How much time do you spend perfecting an idea before sharing a first draft and iterating it with feedback?

Are there ways you can launch and iterate more often?

Let's look at a sample set of answers to these questions with a recent use case.

Jorge is on the IT support team at a multi region enterprise.

His why is to ensure that all employees are able to do their best work with the right access to the right digital tools.

This means that Jorge's users are not the direct customer, instead they are the employees who work in the company.

They expect to be able to easily connect with the support team at any given time, get a resolution to their issues without disruption to their work, and provide feedback for improved services.

When 2020 brought us dramatic changes across the world and forced many employees to work remotely, Jorge needed to provide support at scale.

He needed a solution that was 10 times better than what he and his team used to do when everyone could simply walk up to a support desk or file a ticket.

He mobilized a team of 10 and set up a site called TechShop that was accessible by anyone logged into their corporate laptop.

They added several new services to enable employees to reach them and to resolve their issues, including screen share via Google Meet.

As they gathered feedback from users, they were able to improve the resolution time.

In fact, based on the data collected about the most common issues, they were able to implement a repeatable workflow that automatically resolved users issues up front upon completing a digital questionnaire.

Let's look at another example.

Shreya is part of the logistics team for a retail company.

Her company embrace cloud technology and digital transformation, so they now serve many customers via their online store.

She quickly shifted her own role from managing in-store inventory to coordinating fleet management, including driver schedules, delivery, prioritization and overall efficiency.

Her why is to get customers what they need, when they need it.

Before the pandemic, Shreya met her customers' needs directly in the stores, and now she caters to her customers across the country through large scale delivery.

Her users are, therefore, both the end customer and the drivers who are making this mission possible.

As her team adapted their business model amid a pandemic that prompted the need for a major technological shift to meet greater online demand from customers, Shreya relied heavily on the launch and iterate principle to do her part.

She began identifying innovative opportunities by collecting data from the end-to-end delivery process, from wait times, to loading the delivery trucks, to time and traffic, to delivery.

Based on early data, she was able to find more efficient methods for loading boxes.

But that's not all, Shreya and her team compiled all of their data sources with cloud technology to predict customer demand per specific day of the week.

This insight drastically improved her business operations overall.

Now, these are just two examples of how embracing the innovation mindset can unlock digital transformation in any role.

Now it's your turn.

With these examples in mind, take some time to answer the questions for your role.

Up next, I'll summarize the key topics we covered in this course.

**Quiz. Digital Transformation with Google Cloud.**

1. To help you narrow down the scope of your user’s expectations, which focus areas should you consider? Select the correct answer. (*Para ayudarlo a reducir el alcance de las expectativas de su usuario, ¿qué áreas de enfoque debe considerar?*)

**Access, Engagement, Customization, Communication**

Integrity, Communication, Consistency, Engagement

Access, Engagement, Communication, Reliability

Communication, Price, Availability, Accessibility

2. According to Google’s culture of innovation business principles, what does “*Think 10X” mean*? Select the correct answer.

**Fundamentally rethink business problems and solutions by a factor of 10.**

Reserve 10 percent of all company resources or budget for innovation.

Make 10 changes that will positively impact the customer experience.

Explore solutions that would yield 10 percent improvements.

3. Which three business principles does Google recommend to ensure transformational outcomes? Select the correct answer.

**Focus on the user, think 10X, launch and iterate**

Bias (*sesgo*) toward action, think 10X, launch and iterate

Think 10X, perfect first, focus on the user

Focus on the user, think 10%, and freedom to innovate

4. Talent, Environment, and Empowerment are three focus areas that Google has identified as foundational to organizational transformation. What are the other three focus areas? Select the correct answer.

**Structure, Strategy, Innovation**

Management, Strategy, Creativity

Management, Tactics, Innovation

Structure, Tactics, Creativity

5. Timothy owns and operates an organic food delivery service. Timothy must first define his company’s mission. Which of the following mission statements best focuses on the WHY and not the HOW, providing clear direction?

(*Timothy posee y opera un servicio de entrega de alimentos orgánicos. Timothy primero debe definir la misión de su empresa. ¿Cuál de las siguientes declaraciones de misión se enfoca mejor en el POR QUÉ y no en el CÓMO, brindando una dirección clara?*) Select the correct answer.

**Deliver seasonal produce reliably (Entregar productos de temporada de manera confiable)**

**Connect farmers and consumers through fresh produce** (*Conectar a agricultores y consumidores a través de productos frescos*)

Increase delivery fleets using the Internet of Things (IoT)

Increase produce sales monthly

**Summary.**

Congratulations for making it this far into the course.

We covered a lot.

So let's recap the key points.

**Cloud technology allows businesses to combine powerful computer technology with vast amounts of data to create new value.**

As access to cloud computing resources has become more globally available, early adopters have been able to leverage it to disrupt industries and redefine customer experiences.

You learned that customers now expect fresh, relevant, and easily accessible content almost instantly.



They also expect real time services that are always running and available from anywhere in the world.

Every company now faces the decision to embrace Cloud and thrive or vanish into irrelevance.

You learned that organizations face multiple business and technical challenges no matter where they are in their digital transformation journey.

These key challenges are **fostering innovation through culture change, updating IT infrastructure, modernizing business platforms and applications, seamlessly capturing, storing, and leveraging data for better decision making, and finally, adopting a built-in security model**.

You also learned about Google Cloud solution pillars such as business applications, data storage, and smart analytics.

These give organizations structured pathways for overcoming these challenges and creating new business value.

In addition to the technology, another focus area we covered in more detail was scaling an innovation mindset through culture.

Now, we recognize that what you learned here is just the beginning.

We encourage you to continue to learn about unlocking the value of data by completing the course, Innovating with Data and Google Cloud.

Find out more about the common pathways to digital transformation and fundamental Google Cloud products you should know about in The Value of Infrastructure and Application Modernization with Google Cloud.

And finally, take Understanding Google Cloud Security and Operations to learn even more about cost management and monitoring in the Cloud.

Check out the Google Cloud training catalog at cloud.google.com/training.

And if you've signed up for the learning path, be sure to complete all four courses to get credit.

And that's it for this course.

Now that you know the basics, you can continue your learning and begin exploring Cloud-related initiatives in your organization and with your peers.