



THE PRINCIPLES OF

Collaborative Intelligence



Reimagining how teams **work together**

Innovation is neither formula nor accident —

it's people¹ and collaboration

It's no secret that organizations struggle to harness the power of innovation. CEOs want a more cutting-edge culture and more agile teams.¹

Innovation is hard to achieve and even harder to sustain. And when what works in theory doesn't work in practice, what then? Eureka doesn't pour from the water cooler, and aha doesn't roam the hallways. Serendipity won't be found at the ping-pong table.

Innovation is neither formula nor accident. It's people and collaboration.

Not some lone genius or a few teams in the innovation labs — innovation is the responsibility of all teams in all departments across the entire organization.

And you can't have innovation without collaboration.



**But the harsh reality of work today
is teams are stuck.**

Stuck in a state of disconnection.

¹ The Conference Board. "[C-Suite Outlook 2022: Reset and Reimagine](#)" (Jan 2022)

The problem with collaboration is

disconnection

Trapped in a room — or a Zoom — there's too much talk and too little understanding. Today, inefficient meetings are a bad punchline, and most have given up hope.

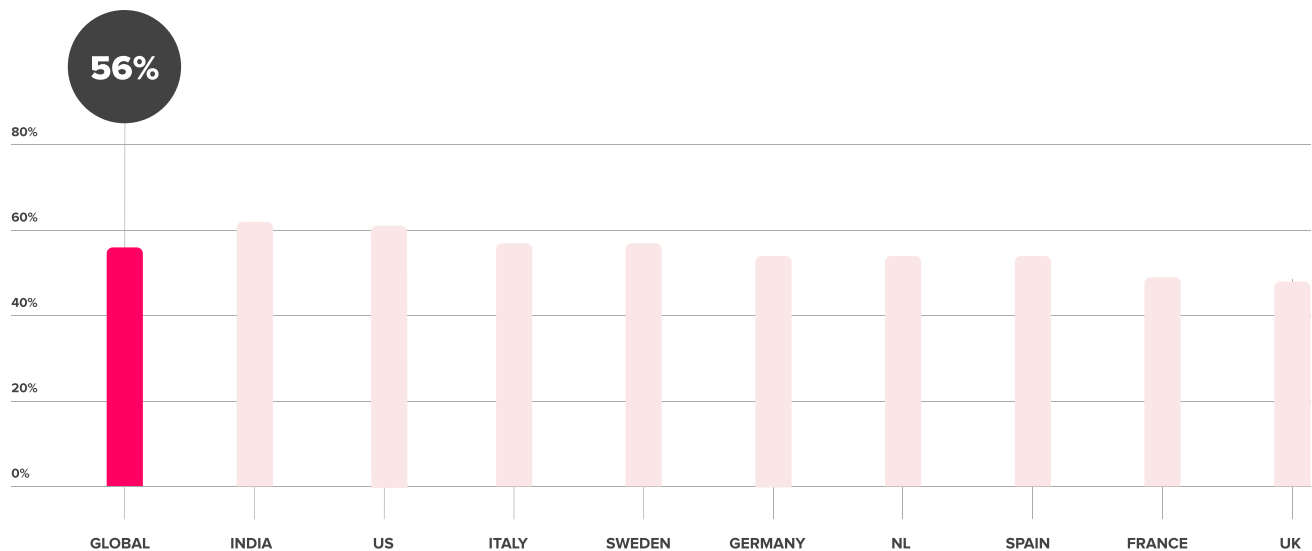
The problem is disconnection.

People are disconnected from each other and from their teams. They're disconnected across departments and with the larger enterprise and its goals.

Despite a hundred ways to communicate — in the office, over email, chat, video, comments, you name it — the current state of disconnection prevails.

According to a Capgemini report, 56% of people feel disconnected from their colleagues because of remote work (that's a global average).²

Share of employees who felt disconnected from the organization and colleagues due to remote working worldwide in 2020, by country



² Capgemini. [“The Future of Work”](#) (Dec 2020)

Disconnection leaves organizations **vulnerable**

The consequences of disconnection are real: People feel unseen and disengage. Ideas are lost. Everyone gets frustrated. Disconnection means people can't do their best work.

Today, one out of every two US knowledge workers is unhappy with their current job,³ and record numbers are quitting. Executives see the threat. Many push a return to the office, the traditional, all-in-one solution for collaboration. They believe that surely once teams are back together in person, they will work together better.

But going back is not going forward. The office is an obsolete solution to the collaboration problem. It's not enough to bring your brightest people together and wing it. And while tools and technology may keep us in touch, they are not enough to keep us connected.



The result of disconnection adds up to disaster for people and organizations. One estimate projects businesses lose as much as \$542 billion, globally.⁴ Others show as much as 85% of employee time is wasted on inefficient collaboration.⁵ Indeed, our own research consistently shows that the top pain point of distributed teams, in particular, is a lack of social connection with colleagues.

Without connection, teams can't exist. Without teams, innovation is impossible.

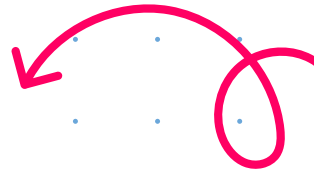
Disconnection puts organizations at risk.

We can do better

³ Salesforce Research, Findings from joint study from Lumina Foundation, the Bill & Melinda Gates Foundation, Omidyar Network, and Gallup, reported in: Jack Kelly, ["More Than Half Of U.S. Workers Are Unhappy In Their Jobs"](#) Forbes (Oct 2019)

⁴ Doodle, ["State of Meetings 2019 Report"](#) (2019)

⁵ Rob Cross et al. "Collaboration Overload Is Sinking Productivity," Harvard Business Review (Sep 2021)



Disconnected teams need Collaborative Intelligence

Collaboration can no longer be left to chance — it must be deliberate. We believe we can inspire teams to connect and innovate with collaborative intelligence.

Collaborative Intelligence

A new systematic approach that connects teams to unlock their genius — taking insights and ideas from possibility to reality.

Collaborative intelligence combines the new discipline of collaboration design with collaboration spaces and emerging Collaboration Insights™ — creating a culture where everyone is connected, contributing, and empowered to deliver business-driving outcomes.

Collaboration Design

Powering collaborative intelligence is a new discipline called collaboration design. This discipline brings purpose and intention to the collaboration process. It takes direct aim at the isolation and disengagement many people feel.

Collaboration design brings relational intelligence and psychological safety to group interactions. With playful, provocative methods of visual thinking, it helps take ideas from imagination to activation.

We expect more than 250 million knowledge workers must develop these skills by 2025.

Our **Collaboration Design Institute™** (CDI) is where the discipline of collaboration design will be taught and learned through self-service curriculum, cohort-based learning, certifications, and communities. The CDI™ will support people who seek to level up teamwork with collaboration design know-how.

Collaboration Spaces

While tools are important and shape our team interactions, it's really the broader environment that gives rise to connected, innovative teamwork. Collaboration spaces offer an interactive, inclusive environment built to enable and amplify the potential of the team.

Our notion of collaboration spaces includes physical and digital, embracing hybrid collaboration, VR, and beyond.

Collaboration Insights™

Finally, collaborative intelligence makes working together not only intentional, but also measurable. Emerging Collaboration Insights will look at collaboration data from multiple angles and do so responsibly and with respect for privacy. Drawing on qualitative and quantitative data from a variety of sources, organizations will be able to measure and improve collaboration at every level of the organization, from individual teams to the entire enterprise.

THE FIVE PRINCIPLES OF

Collaborative Intelligence

PRINCIPLE NO. ONE

People are greater together than apart

Teams accomplish more because they are **something more**

We're here to put an end to the myth of the lone genius. There is no Thomas Edison tucked away solving all the great problems — even Edison had a team of “muckers” working alongside him, brokering ideas and tinkering together.

Whether it's on the sports field, the lab, the classroom, a room, or Zoom, two (or more) heads are better than one. Teams are always made to combine the unique talents — and genius — of individual people. Together more becomes possible.

People are greater together than they are apart, and hard problems are best tackled by teams.

Duncan Watts, a Wharton professor of operations, information and decisions, wanted to test this theory. He and his research team conducted an experiment where participants — both individuals and teams — were instructed to complete a task that the researchers were able to vary in terms of complexity.⁶

At the end of the experiment, the teams were ultimately quicker at getting the job done, even if they arrived at the same result as the individual.

“Interestingly, what we found is that where teams really shine is in terms of efficiency,” Watts said.

Watts continued, “Teams for a complex task could do almost as well as the very best individual, but they were able to do it much quicker. That's because they were much faster, they generated more solutions, they generated faster solutions, and they explored the space of possibilities more broadly.”⁷

“

Teams were much faster, they generated more solutions, they generated faster solutions, and they explored the space of possibilities more broadly.

— DUNCAN WATTS, WHARTON PROFESSOR OF OPERATIONS

What makes teams so much more than the sum of their parts? Individuals are limited to their own experiences and thoughts. Teams are a synthesis of unique backgrounds, perspectives, and ideas. One idea triggers another idea. One person's perspective challenges another's and opens a discussion. When that collective genius is activated, anything is possible.

⁶ Abdullah Almaatouq et al. “[Task complexity moderates group synergy](#),” Proceedings of the National Academy of Sciences (Sep 2021)

⁷ Knowledge@Wharton. “[Are Teams Better Than Individuals at Getting Work Done?](#)” [Audio podcast episode] (Oct 2021)

Teams can't exist without connection

A team forms with **commitment and trust** — not an org chart

It feels good to be a part of a team. That sense of camaraderie, mutual trust and accountability, and the strength of being a part of something greater — that feeling is connection.

Without connection, teams can't exist.

You have to take time and make space for connection — and not just in yearly team building activities but all the time. Focusing on the personal, relational aspects of collaboration must become part of our operating system moving forward.

We've identified three levels of connection to consider:

1. Psychological Safety

Teams require a climate where people become comfortable speaking their minds, taking risks, and invoking a spirit of play — to try out new things without fear of repercussions. This base layer for deep levels of connection is commonly referred to as psychological safety.

It all starts with trust. Amy Edmondson has done some of the best work on the psychological safety of teams.⁸ She writes, "Great teams consist of individuals who have learned to trust each other. Over time, they have discovered each other's strengths and weaknesses, enabling them to play as a coordinated whole."

2. Group Commitment

Once safety is achieved, connected teams that have respect for one another also have a strong sense of commitment. They can count on each other.

Researchers at Google found that, while psychological safety was the most important factor, dependability was a critical aspect of high performing teams.⁹ When team members are committed to a common cause and have respect for each other, they can achieve great things together. People on teams are interdependent.

“

Great teams consist of individuals who have learned to trust each other.

— AMY EDMONDSON, AUTHOR OF TEAMING

3. Team Actualization

Built on a foundation of commitment and trust, a team achieves actualization by pursuing its purpose, creating together, and realizing impact. At this level, a group's synergistic function goes beyond the capability of what any one individual could achieve alone.

⁸ Amy Edmondson, Teaming (2012)

⁹ Charles Duhigg, "What Google Learned From Its Quest to Build the Perfect Team," NYT (Feb 2016)

Collaboration should not be left to chance

Make teamwork intentional through collaboration design

For too long the default strategy for organizations regarding innovative collaboration was to throw the brightest minds together and hope for the best. Leaders sought after “water cooler moments” and hallway collisions, turning to creative approaches to designing office spaces in order to maximize the odds of spontaneous, serendipitous collaboration.

Then the pandemic shifted the trajectory of collaboration forever. Place was replaced by space. Where work happened was replaced by how. Organizations adopted the latest tools and technology to support collaboration. And it wasn't enough.

Collaboration can no longer be left to chance.

Now is the time to codify learnings from design thinking, Agile methodologies, and pioneers in facilitation. Rather than design office spaces, it's time to design collaborative experiences — and empower teams to do their best work together.

Collaboration Design formalizes the know-how and expertise of the facilitator to bring relational intelligence and psychological safety to group interactions. It takes direct aim at the isolation and disengagement many people feel, putting theories about collaboration into practice. Through playful and provocative methods of visual thinking, collaboration design helps teams take ideas from imagination to activation.

The LUMA Institute (LUMA) is a global leader in enabling enterprise teams to be collaborative, creative problem solvers through acclaimed learning experiences, digital resources, and certification programs.

LUMA transforms how teams collaborate and innovate at enterprise scale. MURAL and LUMA **have now joined forces** as one company dedicated to helping teams everywhere elevate collaboration through bringing purpose and intention to the craft of collaboration.

Anyone can elevate teamwork if they know how, and now is the time for collaboration design.

How Teams at Autodesk Connect for Higher Quality Decision-making

Autodesk transformed from traditional installed software to cloud-based subscriptions. There could be no silos: the whole company had to be working together.

To foster connected teams, Autodesk brought in MURAL as a shared workspace and LUMA Institute to teach collaborative problem solving. With this new system of work, they were able to connect across distances, have a pervasive source of truth, and get insight into how content was shared.

Even executive teams improved how they collaborated. Rob Dickins, Chief of Staff, told us, “In addition to the methods, we needed a digital platform to support working in this way. MURAL brings all this together with collaborative intelligence.”

PRINCIPLE NO. FOUR

Collaboration spaces power connected teams

The office is an obsolete solution to the collaboration problem

Decades of research show you must enable the right conditions for successful collaboration.¹⁰

Collaboration Spaces offer teams an environment for exceptional teamwork. These spaces amplify the strengths of team members — they don't average them out. Collaboration spaces reduce bias, promote risk-taking, make it easy to play with ideas, reward imagination, and give people courage to contribute.

Collaboration spaces must support three key elements:

1. Common Space

Teams require a shared place that's accessible and inclusive of everyone — a common space. These spaces can be adapted to best serve the needs of the team.

Today, a common space may be physical or digital (or both at the same time). Working together in a common space supports connection and a shared reality, so that the team can realize its purpose.

2. Dynamic Communication

Despite countless channels for communication, modern teams still struggle to communicate effectively. Phone, email, chat, video calls, documents, and more all impose uniquely stringent, often unintended limits communication.

People need to be free to communicate dynamically — to be able to share ideas and insights thoughtfully and meaningfully without undue constraint.

3. Time to Team

Collaboration takes time. Time spent working together must be managed with intention — it's too important to waste. More productive collaborative experiences become possible when teams unbundle time into synchronous and asynchronous collaboration.

How SAP Transformed Global Collaboration

Teams all around SAP have been changing the way they work. Julie Bartholic, VP of Product Innovation Design for SuccessFactors, has found that the combination of a shared workspace and mindful collaboration help them make decisions twice as fast while reducing turnaround time for deliverables. "I use MURAL for literally everything," says Bartholic.

Distributed teams were able to work better across time zones and increase asynchronous collaboration with a common space made for it. A senior vice president at SAP told us: "The power of an asynchronous working model [with MURAL] ... is underestimated."

As a result, the business benefited from an improved efficiency across the board — from sales to product design. And the overall employee experience was better, as well, including new employee onboarding and increased talent retention.

¹⁰ See in particular the work of J. Richard Hackman, e.g., *Leading Teams* (2002), *Groups That Work (and Those That Don't)* (1991), and *Collaborative Intelligence: Using Teams to Solve Hard Problems* (2011)

Measuring collaboration is possible — and essential



You can't **improve** what you don't know is broken

How much does your company invest in meetings today? The math is actually simple. Let's say you have 10,000 employees who spend 50% of their time in meetings. If the average salary is \$100,000 per year, that's an annual investment of \$500M ... in meetings.

With so much at stake, measuring that investment is no longer a nice-to-have: it's a must-have. Because collaboration is happening more and more in digital spaces, data about collaboration effectiveness is prevalent — but it's under-used.

Collaboration Insights™ will turn raw data into actionable intelligence responsibly and with respect for privacy.

There are different levels of insights we can consider when looking at measuring collaboration:

Individual

Collaboration Insights help individuals better understand and assess their own collaboration performance and evaluate concrete actions they can take to improve.

Team

For teams of 10 members or more, anonymized and aggregated Collaboration Insights help assess and improve collaboration within their group. For example, after a workshop or meeting, teams could learn how engaged people were — or how well methods were employed.

Organization

At the company level, see how teams connect and interact.

For example, anonymized views of Collaboration Insights could provide input into general collaboration effectiveness and can even show which teams are most likely to come up with good ideas.

Ecosystem

Finally, Collaboration Insights also help spot global trends in collaboration design, providing insight into how changes in the way work is done impact collaboration as well as how to collaborate better externally.

How IBM Drives Measurable Cultural Change

MURAL has worked closely with teams at IBM to roll out their Enterprise Design Thinking (EDT) program. In using these methods, teams also created a culture of collaboration across IBM.

Adam Cutler, distinguished designer at IBM, recently told us, "Culture is behavior over time. Together with design thinking methods, MURAL delivers the means for cultural change."

The impacts were measurable:

- Teams cut time in various phases of work, increasing alignment by 75%.¹¹
- Cross-functional collaboration streamlined processes, saving \$9.2M¹¹
- IBM's Design Thinking practice helped teams fix bugs, cutting defects in half.¹²
- Agile development teams saw improved efficiency valued at a total of \$3.8M.¹²

¹¹ Forrester. "The Total Economic Impact™ Of MURAL" (Feb 2018)

¹² Forrester "The Total Economic Impact™ Of IBM's Design Thinking Practice" (Feb 2018)

The **five** principles of collaborative intelligence



1

People are greater together than apart

2

Teams can't exist without connection

3

Collaboration should not be left to chance

4

Collaboration spaces power connected teams

5

Measuring collaboration is possible — and essential

You can **win** with **connection**



Think of a time when you were on a team that worked exceptionally well. Remember how connected you felt? Committed to a common purpose and to each other, you were energized, doing the hard work necessary to turn ideas into reality. Do you remember the pride you felt when you did your best work, and your team's purpose was realized for the very first time?

Now imagine if your organization, your teams, your work led to that kind of synergy all the time — because you were connected to each other and to achieving a shared vision.

That's the aspiration of collaborative intelligence.

You can win with connection. It won't be easy — it will be worth it.

We're ready.

Are you?



“

It will never be enough to bring the brightest minds together and hope for the best. By capturing ideas and measuring teamwork, collaborative intelligence helps us go from start to finish and collaborate with confidence.”

— NICO VALENCIA, HEAD OF INNOVATION, INTUIT

Start the conversation

Share

Start the conversation in your team

Introduce collaborative intelligence to colleagues, managers, and executives and begin the broader conversation around disconnection in your organization.

Discuss

Connect with your peers and spark discussions about collaborative intelligence.

Visit the MURAL Community forum for collaboration here:

mur.al/collaborate

Or jump into a few highlighted threads:

[Gamification of team interaction](#)
[Tips for async work](#)

Take the next step

Learn about the MURAL Collaborative Intelligence System™

Visit our [collaborative intelligence resource page](#), which includes a deeper dive into core concepts.