

Second Edition



The Power of Virtual Distance

A Guide to Productivity and Happiness in
the Age of Remote Work

Karen Sobel Lojeski
Richard R. Reilly

WILEY

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KAREN SOBEL LOJESKI, PH.D.
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*Richard Reilly: For my wife, Laura
Karen Sobel Lojeski: For my husband, Paul*

Contents

<i>Preface</i>	<i>ix</i>
<i>Acknowledgments</i>	<i>xxv</i>
Introduction: We Are the Data	1
Chapter 1: The Road to Virtual Distance	37
Chapter 2: Redefining Distance	49
Chapter 3: Meeting Virtual Distance	67
Chapter 4: Measuring Virtual Distance	97
Chapter 5: Mapping Virtual Distance	123
Chapter 6: Managing Virtual Distance	147
Chapter 7: Redefining Teams	183
Chapter 8: Virtual Distance and Technology	199
Chapter 9: Reimagining Innovation	223
Chapter 10: Soul-Based Leadership – An Introduction	239
<i>Appendix A: Virtual Distance and Neuroscience: A Different Perspective</i>	269
<i>Appendix B: Notes on Survey Research Methodology and Virtual Distance</i>	295
<i>Appendix C: Expanded List of Project Descriptions</i>	305
<i>Index</i>	333

Preface

Ten years ago, we published our first book about Virtual Distance.

And what we predicted would happen, did happen.

Virtual Distance has continued to spread around the world. It impacts not only business performance but also families, education, healthcare, and any institution or community where people interact and communicate.

The concerns we had about Virtual Distance becoming an intensifying force pushing us toward an increased sense of social isolation and a reduced feeling of well-being are now mainstream. Discussions in popular media and policy-making circles attest to the concern over the declines that Virtual Distance continues to create.

Our early data documented the impact Virtual Distance has on various key outcomes. Since our first book we've collected a much larger data set of more than 1400 studies covering more than three dozen industries spread over 55 different countries over the last fifteen years. As we report in this book, the additional data confirms and expands upon our earlier findings. The statistical relationships between Virtual Distance and critical success factors are further validated with a much larger sample. The trend data also tell us that Virtual Distance is deepening

and the effects are getting bigger. We suggest that leaders regard Virtual Distance as being *foundational*, rather than tangential to high-level organizational strategies.

Through our collaborations with organizations that employ more than five million people across the globe we can also report some good news. We've found that predictive solution sets put forth in the original work, along with strategies and tactics developed in our consulting and advisory practice since, can dramatically reduce Virtual Distance and improve business results with predictable accuracy. These strategies also open doors into a renewed and felt sense of human connectedness and relationship vitality that enhance almost every aspect of life lived in the digital age.

INTRODUCTION TO VIRTUAL DISTANCE

Simply put, Virtual Distance is a measurable social and emotional disconnect (conscious or unconscious) that arises when we increasingly rely on digitally mediated communication technology. We detail the Virtual Distance Model in Chapter 3 but provide a brief summary here to highlight key points.

As shown in Figure P.1, Virtual Distance is composed of three major factors:

- **Physical Distance:** Those workplace features that are fixed in space and time like geographic distance, time-zone, and schedule differences as well as distinctions in organizational affiliation.
- **Operational Distance:** The daily noise that gets in the way of fluid, meaningful communications.

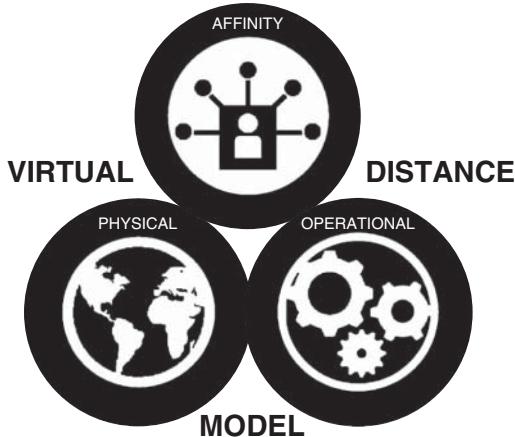


FIGURE P.1 The Virtual Distance Model.

- **Affinity Distance:** The issues that block the development of deeper, long-lasting, and substantial relationships built upon shared values and important human interdependencies.

As we'll discuss in greater detail later on, it surprises many that Physical Distance, what we tend to focus on the most, actually has the lowest impact on organizational outcomes. From a quantitative point of view, the extent to which we're geographically distributed, compared to key performance indicators, rarely rises to the level of statistical significance.

It's Affinity Distance that matters most – those aspects of virtual work that push us away from each other as human beings – no matter if we're thousands of miles apart or sitting at the same table.

As Virtual Distance rises overall, and on Affinity Distance most especially, our decades-plus data show that there are some staggering effects (see Table P.1).

TABLE P.1 The impact of Virtual Distance on organizational outcomes.

When Overall Virtual Distance is relatively high, key outcomes are significantly impacted	When Affinity Distance alone is relatively high, key outcomes are even more significantly impacted
Success falls by 85%	Success falls by 82%
Satisfaction goes down by 80%	Satisfaction goes down by 85%
Organizational Citizenship Behaviors (Helping Behaviors) degrade by 75%	Organizational Citizenship Behaviors (Helping Behaviors) degrade by 86%
Trust is worse by 71%	Trust is worse by 86%
Learning decreases by 70%	Learning decreases by 78%
Leadership Effectiveness is lower by 68%	Leadership Effectiveness is lower by 77%
Innovation is lower by 63%	Innovation is lower by 73%
Employee Engagement falls by 58%	Employee Engagement falls by 66%
Role and Goal Clarity goes down by 53%	Role and Goal Clarity goes down by 54%
Strategic Impact decreases by 41%	Strategic Impact decreases by 50%

The first column in Table I.1 shows the impact of Overall Virtual Distance (all three factors combined). The second column shows a comparison of key outcomes with what we found to be the most important element of Virtual Distance: Affinity Distance.

BACKGROUND

Over the last two decades, digital communications have led to gains for both individuals and organizations alike. “Smart” digital devices (SDDs) that enable flexible work have made it possible for people to build lives in which they can better accommodate a changing set of scenarios faced by many: caring for elderly parents, accommodating different schedules for income-producing family members, and making allowances in order for workers to live anywhere.

At the organizational level, companies have been better able to position themselves competitively by tapping talent from all corners of the world, decreasing expenses related to fixed office locations and broadening brand reach by being able to place people on the ground no matter where customers are situated. There is no doubt that the evolution of work in this way is a win-win.

However, that's only a tiny snippet of a much larger story. Many leaders keep clinging to the mistaken perception that geographic dispersion is the source of most workforce challenges leading to an extensive set of unintended consequences. We see them every day.

The past ten years has seen an explosion of articles, new business start-ups, and organizational change initiatives designed to tackle the troubles that surface in remote work. However, this view of how we work limits our optics in terms of the much larger shift in attention among the whole workforce.

Therefore, we emphasize:

The Prime Principle of Virtual Distance

Everyone is now virtual therefore Virtual Distance affects everyone, everywhere.

Anyone who works primarily through an SDD is mediated by machines that

- take the typed, audio, or other sensory input, like the pressure resulting from tapping on its glass front, from one person, then
- turns it into digital signals (1's and 0s) the device can recognize, then
- moves it through wires and other mechanical things, and
- broadcasts the output to other people.

Therefore, everyone working under these conditions is virtual by several degrees in relation to others.

CASE IN POINT

Think for a moment about sitting at dinner in a restaurant, or at home, while people stare at screens – either typing to each other with only a table between them or exchanging tapped-in messages with unseen others.

Even though they're physically sitting next to or across from each other, we all know that this condition changes the nature of our human experience. Even those simply observing this kind of event report they can “feel” the difference, sometimes through the unexpected silence and blinding lack of eye contact.



We can be right next to someone and yet be completely focused on an ethereal “something or someone else” – like a ghost.

So, in this book we define being “virtual” as someone who works under the conditions described in the above scenario and thousands of others like it. In fact, with attention focused elsewhere, geographic separation is simply one possible extension of being “virtual.”

The overemphasis on location-based separation has other implications. Rarely do organizations measure the extent to which contradictory or confounding indicators, such as having high employee engagement but low trust, actually impacts the bottom line.

For instance, one of our global insurance clients required 90% of its employees to punch an electronic timeclock at a specified set of worldwide locations. They were quite shocked to learn that Virtual Distance was the cause of a \$3 million loss on just one of many strategic IT projects. The C-suite was also surprised when we saved them many millions more over time and improved

their competitive positioning. Using the Virtual Distance Index (VDI) assessment, we were able to hone in on their specific problems and precisely direct the right resources to provide fixes which then quickly led to a positive turnaround in financial results, employee satisfaction, and shareholder value.

The phenomenon of Virtual Distance has other, more serious implications at a human level. Recently, the leader of organizational learning at a European institution shared this with us:

I used to love my job. I'd get to work every day and teach people something new. They'd see how much it helped them put their work into a broader perspective and learned something they wouldn't have seen otherwise. Usually I'd go home feeling really good about my work.

But now I often ask myself why do I come to work? To sit at a desk, tapping at a keyboard for eight hours answering emails, and then go home? This isn't teaching anyone anything. Relationships have been lost. I rarely talk to people – just send notes about going to this software tool or that but nothing that feels like it's making any bit of difference – to me or to them.

This makes no sense and I'm not sure what I'm even doing here other than collecting the paycheck I need to take care of my family.

Unfortunately, these kinds of comments are common in our work with clients at all levels. But it doesn't have to be this way. When we reduce Virtual Distance, these kinds of feelings tend to dissipate and employees often return to a more optimistic mindset because they can better build closer connectedness.

As financial and social costs rise, they reflect what we call the Connectivity Paradox as seen in Figure P.2:

The Connectivity Paradox

The more connected we become, the more isolated we begin to feel.

The Connectivity Paradox:

The more connected we become, the more isolated we begin to feel.

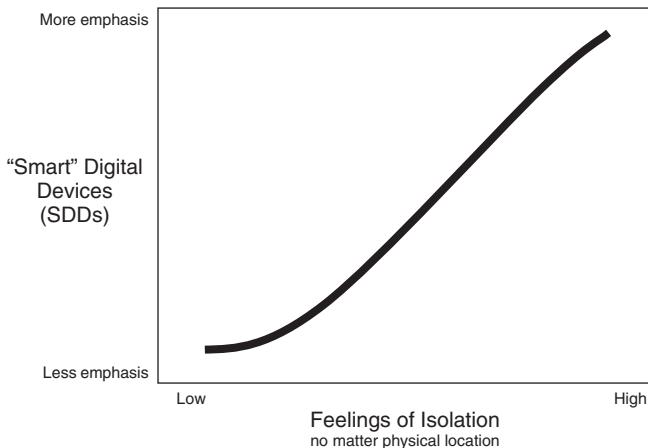


FIGURE P.2 The Connectivity Paradox.

As digital devices advance, people feel more disconnected from work and each other than ever before. This creates a widening chasm between rising productivity expectations, on the one hand, and actual productivity measures and decreasing social well-being on the other.

Let's briefly take a closer look at a productivity paradox in this context.

One day we received the following web inquiry from one of the world's largest consumer packaged goods companies:

By way of introduction, I am a Director at Global CPG Inc. in charge of some leader capability work. One area that our managers have told us is a gap is their ability to lead global virtual teams. We piloted two vendors to deliver training with control groups and each received low marks because they were simply unable to hit the relevant sweet spot our managers are looking for. Participants told us that there was too much theory, too many models – too much “stuff” they could get

themselves on the internet. After reading at least six other books on virtual teams, I came across your book, and believe that the Virtual Distance concept seems to nail the issues our managers face around the globe.

We went on to deliver global Virtual Distance training and solutions. While preparing for that engagement we learned from the CIO that he was frustrated because the top management team was not seeing the returns on investment (ROIs) they were expecting from their billion-dollar-plus technology investments.

At first, he placed much of the “blame” on the users for not using the technology properly (although admittedly he had no specific evidence of this; just a collection of vague anecdotes). But after successfully demonstrating that reducing Virtual Distance actually *increased* technology ROI, mainly because people used more technology capabilities, not less, he came to realize that his initial assumptions were simply the result of outdated ideas informed by past experience and not by the actualities of the present-day, highly transformed workplace.

The lessons from this story are twofold:

1. As human beings, we all tend to default to what we know best to solve difficult problems. This works well in simple cases when cause and effect are known and best practices can be applied. In trying to understand why ROIs fall short in many major tech investments in today’s more complex world of work, we need to allow emergent solutions to come forward: those that are not biased toward ill-informed presumptions about how things used to work blindly applied to how they actually work now.
2. Leaders often publicly report anecdotal impressions of higher productivity resulting from big investments

in technology. But privately, we've discovered that many of those same leaders, like the CIO above, are aggravated and sometimes even removed from their jobs, because the ROI just isn't there. Ironically, reducing Virtual Distance often leads people to get the most from technology and improves ROI because colleagues become much more interested in getting "closer" to one another and explore more of the features that might support improved relationships: improvements that have nothing to do with technology, but with the human-based realities of Virtual Distance.

The data we've amassed over the ten years since our first edition prove that uncontrolled Virtual Distance along with the mistaken gravity given to geographic dispersion leads to negative effects on both the bottom line and worker well-being.

We predicted it would happen and it did.

This presents an opportunity to leverage these insights and improve corporate results by concomitantly improving people's lives by restoring more meaningfulness and satisfaction with work by adopting Virtual Distance practices.

Some people say it's impossible, they say "the train has left the station."

However, the great thing about train stations is that when one train leaves, another arrives.

Using Virtual Distance gives us a choice; we can get on a different train and take a different route moving forward.

WHAT'S NEW IN THE SECOND EDITION

Much of the content from the first edition remains in place, as it is fundamental to understanding and reducing Virtual Distance. The sense-making scaffolding provided by the

original Virtual Distance Model, with one minor exception, has not changed, and has stood the test of time.

The framework still serves as the most valuable way to quickly gain a strong and steady foothold on what is otherwise an amorphous and senseless set of foggy, disconnected, and seemingly random set of symptoms that underneath, point to a much larger problem. In many of the case studies presented, decision-makers who addressed Virtual Distance directly, using prescribed Virtual Distance solutions, were able to get to the root cause of the issues standing in the way of closer collaboration which lead to better financial and innovative results.

Updates have been made to various graphs and charts to reflect what's happened in the past decade. In addition, based on what we've uncovered since the first edition, we've added new content that reflects deeper insights into how Virtual Distance is changing the landscape of work. They include:

- A new Introduction, “We Are the Data”, specifically focuses on the last ten years’ worth of additional and cumulative empirical data analyses over time, and follow-on impacts to business results and people’s experience of work.
- Many new case studies reflecting a broader set of the worldwide workforce from 55 countries across more than three dozen industries.
- New discoveries based on empirical evidence about the ways in which Virtual Distance impacts different generations and remote versus in-person worker complements. We’ve also described new insights revealed by our significantly expanded work with people who have varying tenure and different hierarchical positions spread across an expansive panorama of global projects and work scenarios. More specific examples are described in new or

updated case studies. Additional details are provided in the appendices.

- We've also peppered the book with thought experiments: exercises intended to make it easier to more directly experience and understand the influences of Virtual Distance on everyday work and life.

Finally, we've added various "Myth Busters" to showcase numerous examples of counterintuitive findings that shatter strongly ingrained myths about organizational behavior, design, and strategy in our new world of work. Despite the fact that many leadership challenges are new, as a business community we continue to over-rely on management thinking and solutions that were fundamentally designed around what are now, outdated assumptions. Myth Busters also highlight some of the most widely held and largely misleading beliefs about the way work actually functions when the most meaningful human dynamics disappear behind virtual curtains.

HOW THE BOOK IS ORGANIZED

Introduction: We are the Data provides a "big picture" view of the data and findings we've uncovered over the last fifteen years. The chapter is structured in a way that we hope helps the reader relate to the numbers in more personal ways – not just as vague analytics. We introduce the concept of **Human Oriented Meaningful Experience (HOME)** as a new way to see how we *are* the data, not just outsiders being impacted by trend lines that are beyond us somehow. We discuss major influences shaping workplace transformation and reveal counterintuitive findings that may help the reader take a different approach to reshaping work over the decades to come.

Chapter 1: The Road to Virtual Distance takes the reader through the story of how Virtual Distance was

discovered. The background is helpful as a way to place perspective around how we quantitatively measure Virtual Distance and its effects on business outcomes which have since led us to a never-before-achieved mathematical relationship: **The Virtual Distance Ratio.**

Chapter 2: Redefining Distance gives the reader a historical view of “distance,” exposing the so-called “death of distance” as a myth and showing how our understanding of distance in the virtual workplace is ill-informed by focusing on Physical Distance alone. We describe how including the other two main components of Virtual Distance, having more to do with the psychological gulfs between us, developed as we tap on our keyboards instead of experiencing one another in the context of a larger world, is leading business astray.

Chapter 3: Meeting Virtual Distance discusses the Virtual Distance Model and its three major components: Physical Distance, Operational Distance, and Affinity Distance.

Chapter 4: Measuring Virtual Distance details how Virtual Distance is measured using the Virtual Distance Index (VDI), the tool we developed to quantify how Virtual Distance affects the most important aspects of work that has stood the test of time for more than a decade. In this chapter we detail the impacts Virtual Distance has had on key performance indicators over the last fifteen years.

Chapter 5: Mapping Virtual Distance explains how Virtual Distance can be “seen” through Virtual Distance Mapping: a technique that illuminates what we call Critical Relationship Paths (CRPs), along which Virtual Distance should be reduced to avoid project failure.

Chapter 6: Managing Virtual Distance describes specific strategies and tactics to reduce and manage Virtual Distance over time.

Chapter 7: Redefining Teams focuses on how virtual work has changed the way teams work and how Virtual

Distance offers a unique universal language that transcends even the most culturally diverse and individualized team members.

Chapter 8: Virtual Distance and Technology highlights the important point that technology is not the main issue when it comes to the changing world of work. We continue to show evidence that it's the people, not the technology, that are most important to work and the future of the organization. Nevertheless, many people ask how technology relates to this process; therefore, we chose to leave this chapter in this edition of the book to give guidance on how to select technology and software in service of reducing Virtual Distance.

Chapter 9: Reimagining Innovation describes how Virtual Distance and innovation are inherently linked. Left uncontrolled, Virtual Distance can corrode innovation initiatives severely. We provide crucial guidelines on how to avoid this key threat and instead leverage the Virtual Distance Model to understand how to get the most out of innovation at each phase in that process.

Chapter 10: Soul-Based Leadership™ – An Introduction reveals a never-before-seen leadership model, Soul-Based Leadership, and discusses why, when leadership is viewed in this most human context, we can use entirely different mental models and experience-based practices to restore higher levels of meaning and well-being back into work.

Appendices include:

In **Appendix A – Virtual Distance and Neuroscience: A Different Perspective**, we interview Martin Westwell, our colleague, friend, and global expert in cognitive neuroscience, education, and workforce. In this appendix, he shares his views on how Virtual Distance and neuroscience are integrally connected. He also shares his thoughts on

how communication technology is changing the rules of human interactions; has significant negative impacts on our experience of belonging, purpose, and ultimately how we learn; and points out a key caution from the OECD around being careful not to create second-class robots instead of first-class humans as we move ahead with education policy and the future of work.

- In **Appendix B – Notes on Survey Research Methodology and Virtual Distance**, we share some additional detail around the touchstones required for rigorous research methodology and survey research in social sciences. We then reveal how the development of the Virtual Distance Index and the discoveries that followed used these important criteria.
- In **Appendix C – Expanded List of Project Descriptions**, we list many examples of the kinds of work our Virtual Distance participants were involved over these last fifteen years. As part of the **Human Oriented Meaningful Experience (HOME)** concept described in the Introduction, we wanted to share as many examples as possible so the reader is able to see themselves in the data, given the likelihood that they share similar experiences with many different combinations of circumstance.

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We would like to acknowledge many people who have helped us in our ongoing work on this second edition of our first book on Virtual Distance. Our sincere thanks to our Managing Editor at Wiley, Sheck Cho. His enthusiasm and close collaboration to bring this second edition to market is most greatly appreciated. In addition, we'd also like to thank Elisha Benjamin, Karen Weller, Samantha Enders, Jayalakshmi Et and all the other people at Wiley for their diligence in moving the book forward. There were many with whom we worked to get this second edition polished and published. Paul Lojeski was especially instrumental as a reviewer, editor, and source of truthful and direct feedback, encouragement, and steadfast dedication to this work. We would also like to thank our many clients and students over these fifteen years for their continued enthusiasm, evangelism, and implementation of Virtual Distance solutions. They include executives, managers, and individual contributors from many Fortune 500 companies, government organizations, academic institutions, nonprofits, policy-making and other organizations across the globe. We'd also like to thank Professor Martin Westwell for his continued collaborations around Virtual Distance, neuroscience, and the future of education and work. His remarks, which are included in Appendix A,

have been highly informative to our thinking as we continuously look for ways to reduce Virtual Distance and help human beings discover more about themselves in new ways. We'd also like to thank VDI friends and collaborators Ellen Pearlman, Diane Eynon, Stephen Weinroth, Edward Kerson, Chuck House, Irving Wladawsky-Berger, Carl Enerothen, Sally Pera, and many others who contributed a great deal as we developed this updated edition.

THE POWER OF VIRTUAL DISTANCE



Introduction: We Are the Data

Over the past fifteen years, we've collected a rich set of data from more than three dozen industries and institutional sectors. From this deep pool of participants, we've gathered more than 1400 cases, some of which represent intact teams and some of which represent leadership that oversee thousands more. There's no question that the range of data is extensive.

In fact, it's the only data set of its kind in the world.

We can now unequivocally assert that:

- Virtual Distance distinguishes cause from effect when sorting through virtual work challenges and outcomes.
- The Virtual Distance Model provides a sense-making structure that *predicts* success or failure.
- Matching predictive Virtual Distance solutions with situational specifics enables leaders to target tactics that predictably increase performance and guard against a myriad of unintended consequences resulting from workplace transformation.

The aggregation of more than a decade worth of Virtual Distance and its impact on organizational outcomes across multiple organizations allows us to demonstrate that

the results detailed in this updated edition show how our studies replicate across time and organizational contexts. That is, our results are not simply snapshots of cross-sectional conclusions.

Moreover, our data and experience unquestionably demonstrate that Virtual Distance represents a fundamentally new leadership challenge. This serious scenario is pervasive and shows up in every industry, is detected across organizational functions, and is impacting people at all levels.

In this edition, we include dozens of industries, related departments, divisions, and groups as well as employees that hold more than 150 titles ranging from the C-Suite to individual contributors (see Tables I.1, I.2 and I.3 at the end of the chapter).

A DIFFERENT VIEW OF ANALYTICS

Analytics are a central focus of today's management practice. Virtual Distance analytics reveal the invisible influences that impact individuals, teams, and entire organizations. We go beyond single entities, measuring Virtual Distance between companies and their customers, supply chain partners, and advertising agencies. Virtual Distance causes digital age performance degradation and the predictive solutions that follow increase critical success factors across the board.

But being inundated by data-driven analyses can lead to a loss of the human line of sight; a view that goes beyond what's reflected in the data alone. As we've said so far, despite technology's perceived wizardry, it's still human experiences that are more important. The highest payoffs come from a felt sense of purpose at the individual level, team harmony at the group level, and competitive fortitude at the company level.

So we decided to present an analytical perspective in which the reader might participate; an approach we hope creates a broader view and collaborative conversation.

FINDING HOME BASE

To crystalize these closer connections, we've put forth a context to provide landmarks for you to follow as we present our findings.

Together, we call these markers the **Human Outlook on Meaningful Experience (HOME)**.

HOME provides a perspective to frame analytics in a fully formed human context in terms of the “where,” the “when,” and the “what” of our real-life, everyday experiences (see Figure I.1). Some of that data is explicit and points to repeatable, predictive patterns. However, much of the most important data remains as tacit features of human experience that can only be accessed when we think about HOME.

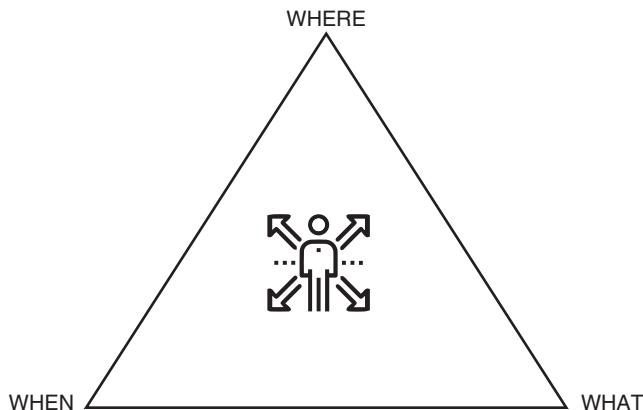


FIGURE I.1 Human Outlook on Meaningful Experience (HOME).

THE “WHERE”

We are always “somewhere” in physical space. And that place, whether we think about it consciously or not, provides a direct encounter with reality around which our thoughts, emotions, and decisions are unconsciously formed and shaped.

When we deliberately pay attention to the “where,” even for a moment, this embodied cognition helps us clarify and reflect on our thinking, opening the way for us to step back and keep other things in mind. When we do so, we’re using what the Nobel Prize-winning economist Daniel Kahneman called “slow thinking.” Slow thinking is critical for not allowing “fast” or reflexive thinking to dominate. Instead we can reflect on multiple perspectives that lead us to consider different ways to answer complex problems and develop innovative solutions. We’ll come back to this in Chapter 10 on Soul-Based Leadership.

In this second edition, we’ve expanded the “where” of the data significantly. It now includes proof points from dozens of countries where Virtual Distance has been detected, measured, and mended. Most of the world’s industrialized nations are represented, as well as underdeveloped and developing countries (see Table I.4 for list view and Figure I.2 for map view).

We shared our findings at the 2011 United Nations’ Conference on the Commission on the Status of Women where

TABLE I.4 List of countries represented in the Virtual Distance Benchmark Data.

Argentina	Cote d'Ivoire	Indonesia	Nigeria	Spain
Armenia	Czech Republic	Ireland	Norway	Sweden
Australia		Israel	Micronesia	Switzerland
Austria	Denmark	Italy	Pakistan	Taiwan
Belgium	Ecuador	Japan	Peru	Tanzania
Brazil	Estonia	Jordan	Poland	Turkey
Canada	Finland	Kenya	South Korea	United Kingdom
Chile	France	Latvia	Russia	
China	Germany	Lithuania	Saudi Arabia	United States
Columbia	Greece	Mali	Singapore	Zambia
	Hong Kong	Mexico	South Africa	
	India	Mozambique	South Sudan	
				Netherlands

Countries in **DARK GREY** included in Virtual Distance Benchmark data



FIGURE I.2 Map view of countries represented in the Virtual Distance Benchmark Data.

more than 1200 NGO representatives from over one hundred countries connected over Virtual Distance. The organizers summarized the session in their final report as follows:

Dr. Karen Lojeski presented her research on “virtual distancing” which is a perceived distance that grows between people when they rely on electronic communications. Paradoxically, the more connected we become as a society, the more isolated we begin to feel as individuals. We have to understand both what technology can do in terms of helping, as well as hindering human interaction, especially regarding women development and spirit. Participants then discussed virtual distancing.

The group concluded:

Virtual Distance is of vital importance to women, but yet challenges of Virtual Distance and communication can hinder women’s progress and cannot be solved merely by learning and training women. Everyone needs to participate in addressing this challenge, including educators, policymakers, those in positions to “communicate to the world.”¹

Virtual Distance is something we share as a global workforce. It’s something we have in common no matter what part of the world we’re from. In every training or executive advisory session we lead, no matter the variation in location, language, or culture, people feel as though they “understand” Virtual Distance even though they may never have heard of it, as highlighted in the remarks from the UN report.

People who think they’re disparate and disconnected quickly begin to exchange stories about Virtual Distance in their particular context, which in turn rapidly leads to the shared realization that they may have more in common than they originally thought.

Uncontrolled Virtual Distance is a major inhibitor to individual and organizational effectiveness. But ironically,

its power as a unifying concept is equally as strong. Savvy leadership take advantage of this paradoxical situation by increasing awareness of Virtual Distance. Once Virtual Distance is understood the virtual workforce can use the language and sense-making framework to explain what might otherwise seem to be unsolvable and unrelated problems.

For example, someone receives an email that bothers them. They assume perhaps something like, “this person doesn’t understand my position at all.” After learning about Virtual Distance, that same receiver is likely to take a more objective view, concluding that there’s too much Operational Distance between them.

Additionally, the reality that the virtual workforce is made up of people from different parts of the world can lead to the mistaken and damaging perception that we are also different as human beings.

MYTH BUSTER

Many assume that just because we’re from different parts of the world, we’re different as human beings. But when we start from HOME base as the foundational view of virtual work, we can clearly see we’re more similar than we are different.



In Chapter 3, we’ll show how this plays out particularly in what we define as Affinity Distance. But for now consider that when we start from HOME base and apply Virtual Distance principles, we’re able to see that we’re more similar than we are different – no matter where our fixed location. And this leads us to new and energetic combinations of more effective management tools built specifically for the digital age.

CASE IN POINT

Recall CPG Inc. in the Preface, where the senior director was in contact with us to find a suitable solution to his global virtual team problem after having tried two other methods that failed.

In the Virtual Distance implementation that followed, our first two management cohorts included 30 leaders and 200 of their direct reports in total. The first cohort represented people from:

- Austria
- China
- Czech Republic
- Greece
- Indonesia
- India
- Italy
- Kenya
- Pakistan
- Russia
- Singapore
- South Africa

The second cohort represented people from:

- Argentina
- Ireland
- Poland
- South Africa
- United States

In both cases participants came from a variety of business units spread around the world, including:

- Global Business Services
- Marketing

- Human Resources
- Technology
- Quality, Safety & Environment
- Innovation
- R&D

The demographics of this case are represented in Figure I.3.

To the right we've added two graphics to show each cohort's relative Virtual Distance Profiles from the output of our Virtual Distance Management software. We include an overview here because just by taking a quick glance at the two Virtual Distance Profiles in the context of group locations and divisions, it's clear that the shape of Virtual Distance is similar across these two cohorts despite the variations in geography, divisions, and management levels.

When seen from this broader pattern CPG's top management teams were equipped with what they needed most to reformulate renewed and highly effective worldwide workforce strategies.



This is just one of dozens of similar cases that show that the “where” of our work, as represented solely by location, doesn't have to divide us. In fact, it can inform us. By understanding our relative location in terms of HOME, it can also unite us.

The “Where” as Remote vs. In-Person

Another feature of the “where” of work is reflected in remote versus in-person work configurations. Due to the prevailing myth about geographic separation, some companies have carried out strategies that ban remote work because they perceive this characteristic to be a central factor in performance degradation.

But this approach has not worked out well.

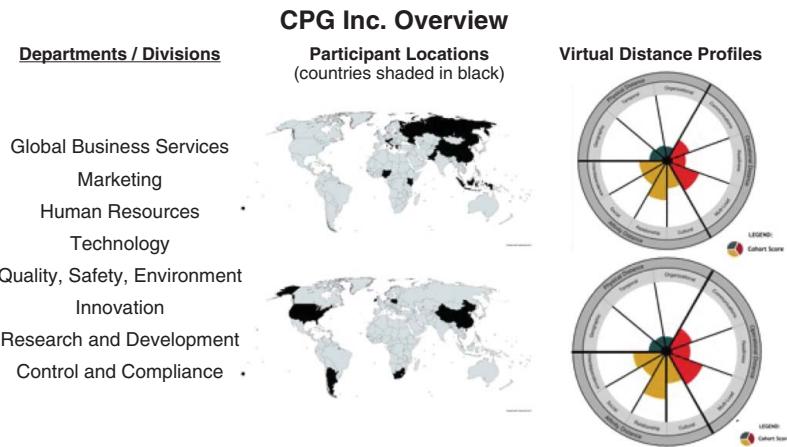


FIGURE I.3 CPG Inc. overview.

There's a lot of confusing messages in the popular press centered on practitioner beliefs and disjointed anecdotes that have been used to try to explain what happens to performance when we're remote, instead of thinking about what happens when we're virtual, as we've defined it. Without a clear and rigorous rubric with predictive links to management influencers and financial outcomes, there's no way to know what works best. Therefore, strategies based on prohibiting people to work remotely, fail.

Fortunately, Virtual Distance solves this problem.

By looking at the Virtual Distance data along a continuum of remote worker to in-person worker data over this last decade, we can now provide more definitive answers.

Let's first take a look at the range of data we've collected.

In our updated benchmarks, before accounting for Virtual Distance, we measured the percentage of time people work from home or some other remote location all the way through to an office location. This breakdown is shown in Figure I.4.

As you can see from Figure I.4, 55% of benchmark participants worked primarily from a corporate office and 23% worked remotely 21%–50% of the time, 7% worked

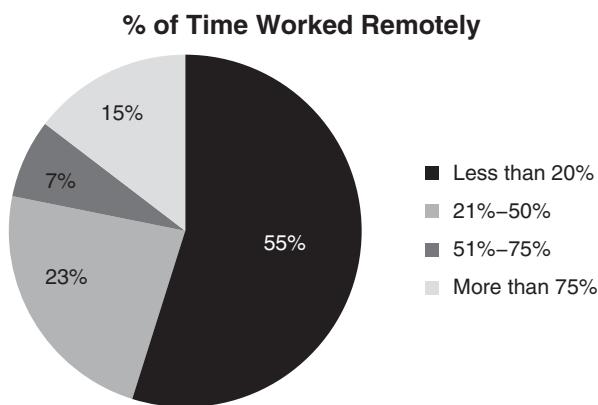


FIGURE I.4 Percentage of time worked remotely.

remotely 51%–75% of the time and 15% worked remotely more than 75% of the time.

However, simply knowing the distribution of where people work isn't enough. Empirics are needed to understand what performance differences, if any, exist between those who work more frequently in an office versus those who work more frequently from a remote location.

Our benchmark demographics combined with Virtual Distance data give us those answers:

- Remote workers have the least trouble with technology being ready when it's needed.
- Remote workers tend to cope best with multiple projects and tasks.
- Remote workers use the least varied communication modes.
- Remote workers are generally impacted the hardest by a lack of shared context.

Despite these last two challenges remote workers are:

- Closest when it comes to shared values.
- Feel a kinship to one another.
- Have the greatest sense of interdependence with their team members.

These ingredients are crucial to keeping Affinity Distance low and it's this advantage that helps remote workers overcome operational difficulties, when they arise.

Next we looked more closely at how much time people spend working more remotely versus in-person on a continuum and compared it to performance on critical success factors.

We found some surprising results. There was no statistical difference between remote versus in-person workers on:

- Trust.
- Satisfaction.

- Clarity around roles and goals.
- On-time, on-budget project delivery and customer satisfaction.

This tells us that remote and in-person employees work equally as well in terms of desired results on these dimensions.

However, we did find statistically significant differences between all four categories of work location on other important outcomes.

Table I.5 below shows workers on the continuum of percentage of time worked remotely ranked by Organizational Citizenship, Learning, Employee Engagement, and Innovation (for detailed definitions of each of these terms see Chapter 4, Measuring Virtual Distance).

As you can plainly see, remote workers ranked first (best performance) on all but employee engagement and even on that measure, they ranked second best. Those that worked more in-person ranked second best behind more remote workers on the other three indicators. And those in the middle came in third or fourth.

This is an eye-opening finding.

TABLE I.5 Performance rank as a function of percentage of time worked remotely.

% of Time Worked Remotely	Citizenship /			
	Helping Behavior		Learning	Employee Engagement
	1=Very Best 4= Least Best	1=Very Best 4= Least Best	1=Very Best 4= Least Best	1=Very Best 4=Least Best
Less than 20% (Less remote)	2	2	1	2
21%–50%	3	Tie for 3	4	4
51%–75%	4	Tie for 3	3	3
More than 75% (More Remote)	1	1	2	1

Here's the reason. Remote workers usually have access to tangible resources around how to best work remotely. These are either provided by the company by way of formal training or through more informal channels sometimes known as Employee Resource Groups (ERGs): volunteer employees who get together informally and share best practices, references to online help, webinars, or "lunch and learns" to disseminate materials and share experiences. ERGs are usually characterized by self-motivated individuals driven by a common aspiration to better understand how to help others struggling with virtual work because there's usually no coherent company-sponsored training in these cases.

CASE IN POINT – FORMAL TRAINING FOR REMOTE WORKERS

At BIG BANK Co., senior leadership designed a step-by-step process to move more workers into home offices. Those who chose to work this way were given ergonomically sound equipment and went through regimented training programs on how best to work remotely. When we assessed Virtual Distance, we found many aspects of Virtual Distance having a negative impact on all groups. However, overall, remote workers performed best, despite these roadblocks. The reason was that remote workers felt the company was making a serious effort to help target solutions to support them. They had visible resources to reach out to, and structured systems to get help when needed. They did not feel at all "stranded" even though Virtual Distance challenges were detected.



CASE IN POINT – INFORMAL TRAINING FOR REMOTE WORKERS

At another large consumer goods client, an employee resource group (ERG) was formed by a volunteer with a keen interest in helping remote workers. Her own career had been buoyed when the company agreed she could work remotely and live on the opposite coast of the headquarter location. She joined another executive and together they formed an informal advisory service to provide resources for remote workers. Even though it was a loosely coupled group whose resources were constrained, their shared passion for flexibility and work excellence resulted in a highly effective global management program. Still, similar to the case above, all felt the sting of Virtual Distance. So they participated in Virtual Distance Index assessments and could see exactly why they were still experiencing less-than-optimal success. They developed a Virtual Distance Action Plan and after only a couple of weeks into its implementation, they reported higher levels of collaboration and effectiveness.



Recall the **Prime Principle of Virtual Distance:**

Everyone is now a virtual worker; therefore, Virtual Distance impacts everyone, everywhere.

Keeping that in mind, we can also see that by virtue of working remotely, communities can form that help people stay more connected while also taking advantage of work/life flexibility. Those who primarily remain in office

environments feel advantaged by being close to colleagues when they want to be; stepping out for coffee instead of emailing the person next door is a choice. They also feel their chances for promotion are higher because they have more personal access to influential managers in the power structure.

So given structural clarity mixed with the right levels of training, formal or informal, it makes sense that high performers often reside on one end of the spectrum or the other – either mostly remote or mostly in an office location.

Another way to look at how more remote versus less remote workers perform on the four measures of innovation, organizational helping behavior, learning, and employee engagement is to chart performance on a graph.

Figure I.5 shows the same data as Table I.4 from a different vantage point. When viewed this way, we can see that the people in the middle of more remote versus less remote score significantly lower than those on either side. In other words, those who work 25%–75% remotely perform lower than those on either side. This “valley” is something we call the Fuzzy Zone.

The Fuzzy Zone

In the Fuzzy Zone there's a lot of work flexibility.

However, there are no clear support structures or training initiatives focused on these groups. In many cases, although they may not realize it, people in the Fuzzy Zone feel a bit like stepchildren: as though they have to fend for themselves without having distinct routes to guidance, either formal or informal, when help is needed. This is why the Director of Shared Services at CPG Inc. reached out to us.

By implementing Virtual Distance solutions no matter where people work, the Fuzzy Zone goes away and performance increases across the board. With the common

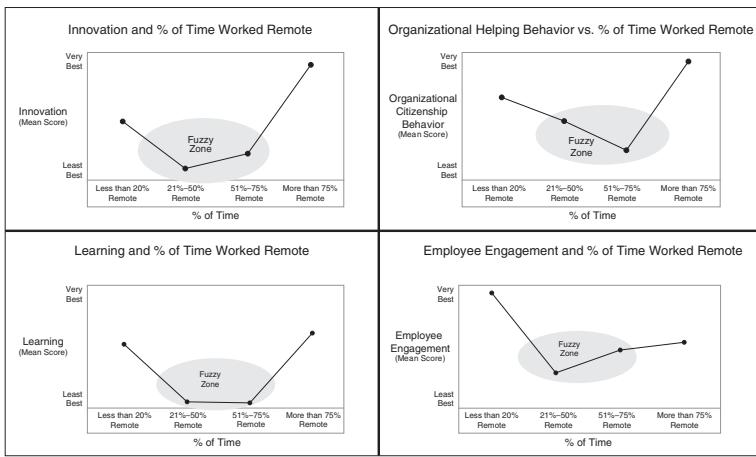


FIGURE I.5 The Fuzzy Zone.

language and metrics provided by the Virtual Distance Model, and the predictive set of strategies and tactics that go with that, everyone in the organization has clear, consistent guidance that's predictive of success. Without it, as we see in the figures above, people drift into the Fuzzy Zone and performance falls off.

From all the data on “the where” of work at this high level, it’s clear that the solutions executives usually reach for first in terms of “fixing” what they think are location-based challenges, when they’re usually not, are full of fallacies about what works best and what doesn’t.

However, those aren’t the only misconstructions about the workforce that are leading to the wrong conclusions. With four generations actively working together in the digital age, the Virtual Distance analytics cut across perceived differences and show that when we go back to HOME base, other misjudgments lead us to inaccurate conclusions.

THE “WHEN”

We are always in “some time” as well as “some place.”

But it depends on what time horizon we use to put this aspect of HOME into perspective. We could look, for example, at how long we’ve been on earth as a human species (see sidebar).

SIDE BAR

In a Public Broadcast Station program series called NOVA in the United States, there’s a documentary entitled *A Rocky Start*, taking the viewer through a discussion of how rocks played a critical role in the development of life on earth.

The narrator points out that if we look at our history as a planet to date, mapped as a single, 24-hour day:

- All humans, from the earliest skeletons found so far to those holding iPhones today, only showed up in the last 4 seconds.
- Dinosaurs were still roaming the planet 20 minutes ago.
- But the creation of the planet happened 23 hours earlier.

So as humans, we've barely begun, relative to a celestial time scale.



A discussion of time in terms of our presence on earth would of course take us into another book so for now, we look at what's happening in our current world of work.

In the Virtual Distance Model, we account for time as a part of Physical Distance because it is fixed in terms of time zones and schedules, the details of which are discussed in Chapter 3.

At this point, from a broader point of view using HOME as our starting point, the time-centric element that's most misunderstood is the difference(s) between generations: the "when" of our lifetimes.

Like the "where" of work, the Virtual Distance benchmark data helps to clear up many misperceptions about the "when" of work as seen through a generational lens. Let's take a look at the range of data on distribution of generations:

As you can see from Figure I.6, a majority of the people we've worked with over the past decade are from Generations X and Y, while only a small percentage come from the Silent Generation. Still almost 20% are from the baby boomer era, however those in the Silent Generation and baby boomers are declining as a percentage of workers while the number of millennials is rising.

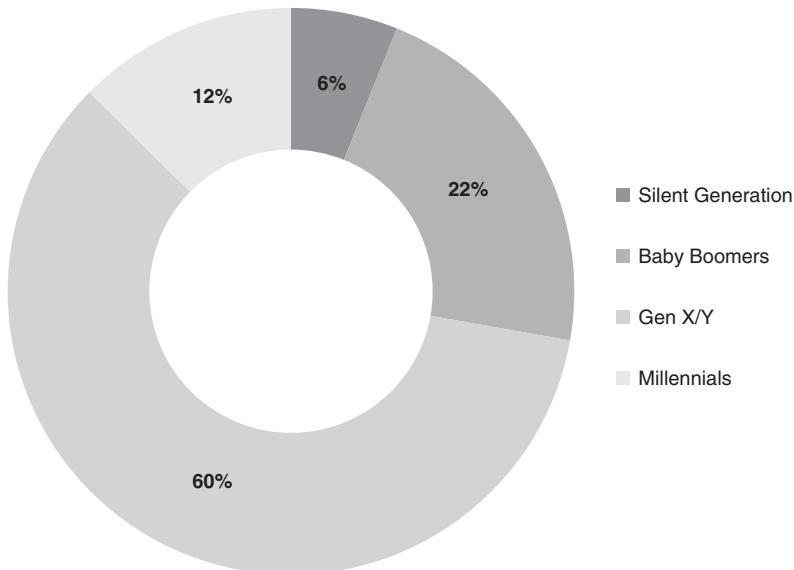


FIGURE I.6 Virtual Distance Benchmark Data by Generation.

Many claim there are vast characteristic differences between generations at work. Most notably is the idea that millennials are a cohort referred to as “digital natives,” meaning in part that for most of their work life and much of their teen years, technology mediated communications were there from the start; they are “native” to this communication environment. The rest are by implication, technology immigrants to mediated life.

However, this view comes with a strong warning. Much like geographic location spawns the wrong ideas about the nature and impact of geographic separation, so too does this understandable yet unfortunate way of looking at generational differences.

It’s true that some in the earlier generations aren’t fluent in the use of technology as a communication tool but in many cases it’s not true; this view is too broad a generalization and creates unnecessary chasms between us that can be destructive to shared discourse and collaboration.

From another point of view many ascribe certain personal traits to millennials, which we know from our work are just not true either, in general. In fact, many millennials have shared with us that this can be more than frustrating, even infuriating to them, because they often feel that from others' points of view technology defines them, when in fact, like other generations, they have dreams, personalities, interests, and aspirations that are in no way tied to technology but to who they are as people.

CASE IN POINT

Most recently, a brave and pragmatic 15-year-old, Greta Thunberg, addressed the United Nations about the dire situation with regard to climate change. She pointed out that technology, as she puts it, “that’s barely there,” will not save her generation from potential life-ending destruction from severe weather and pollution. As an elegant researcher and voice of her generation, instead she spoke about the fact that the solutions needed must be human-based, imaginative, and urgently implemented to beat the carbon credit clock.

One of the most stunning aspects about her is that she comes from the next generation, the youngest among us. Her focus on human creativity to develop a policy framework to beat the clock has almost nothing to do with technology at all; in part because it doesn’t exist and even more so, it’s human behavior that must be adjusted that is vastly more important.



The bottom line: millennials want similar things out of life as all other generations: a good job, a satisfying social life, financial security, and reasons to believe their future will be bright. With the impending impacts of climate change, of course, their needs also include a way to ensure human survival – a subject that is beyond the scope of this book but still influences the very nature of the “when” of

their lifetimes. As business leaders we need to grapple with the fact that young ones can actually see their potential future to include, if not their own, their children's potential extinction.

Unfortunately, the HOME-based view of “the when” of our lifetimes, highlighting the similarities we have with one another as opposed to our differences, is often overlooked by older generations because the first thing that comes to mind about young people is usually their attachment to their SDDs. There are reasons to be concerned about social isolation, as we described earlier. But we’ve learned that leaders who look more closely at the human that’s hidden behind glowing screens see that millennials suffer the most serious consequences from virtual work, such as higher levels of depression, anxiety, and life dissatisfaction, even without the more serious consequences described above.

Our data also show that millennials have significantly higher “out-group” problems because the teams they’re part of tend to be dominated by members who have very different histories. In a world of work where four, if not five, generations are working together at the same time for the first time in human history, millennials feel especially distant from affiliations with colleagues.

Typically, affiliation-related disconnects produce silo behavior when looked at in the aggregate. However, we’ve seen this disconnect in millennials because of other reasons. One example is related to the on boarding process. In many organizations that still have formal onboarding programs, they often lack emphasis on relationship-building and instead steer young professionals to stay highly task-focused to take advantage of their technological prowess. This process misses the potential advantage that would come forward if their “whole” person were onboarded into the company. Companies using more robust onboarding processes on the

other hand can create cohorts that develop community as they begin to work their way into new groups.

Another problem that Virtual Distance highlight is that millennials tend to over-rely on one communication mode versus a more varied mix of phone calls and other “live” encounters. This is no surprise. But when coupled with a sense of being an outsider with few shared experiences with other generations, as well as even more debilitating deficits we found in Affinity Distance, this can create more serious team dysfunction.

One manifestation is an absence of common social circles with colleagues, as compared with other generations. So it’s not shocking that millennials have the highest levels of distrust for team members than any other generational cohort. And trust has a fundamental influence on all other influencers.

In Figure I.7, you can see that there are significant differences on a number of key performance indicators between generations.

Millennials had significantly lower trust than all other generations. These results should cause concern for employers because low levels of trust, or what we find most to be distrust, leads to lower levels of organizational helping behaviors and employee engagement.

As we’ll also see in Chapter 4, uncontrolled Virtual Distance has a significant impact on trust which leads to highly problematic influences on almost all behaviors that then result in lower performance and employee well-being. So the fact that millennials generally feel more detached on a personal as well as company level should signal leadership to prioritize initiatives that help uncover cause-and-effect relationships around this most important issue. Similar patterns to trust can be seen for organizational citizenship behavior and employee engagement with regard to millennials.

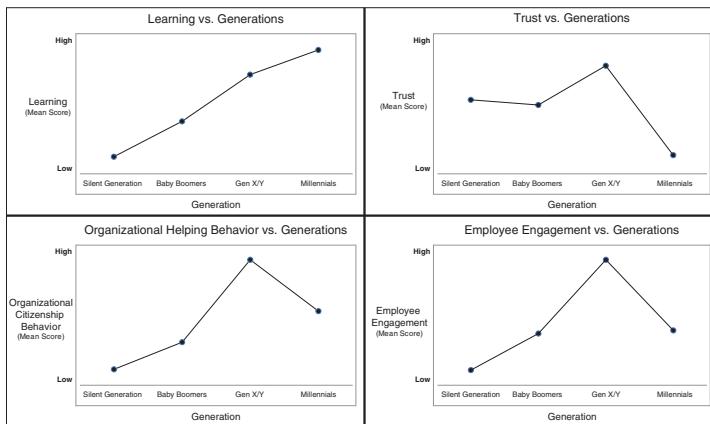


FIGURE I.7 Virtual Distance Benchmark Data on generations and organizational outcomes.

The good news: reducing Virtual Distance will change these relationships, and millennials on teams where Virtual Distance is lowered will escape this pattern.

And what could be a better motivator than our finding on learning? Millennials by far participate in organizational learning the most. This may seem counterintuitive given what we've discussed so far. However, despite other indicators, millennials stay focused on seeking out new insights. They're strongly motivated to learn new things, so they tune in to listen for lessons learned during team meetings and transfer those lessons to other work through their teams. This is one of the main reasons why millennials can gain a lot of skill-based competencies even though they're not as socially close. However, because they're often more disconnected, they're more likely to leave. And in the age of digital transformation, companies are more focused than ever on harnessing long-term institutional knowledge and turning it into explicit advantage. For this, millennials are a key resource.

Companies that provide robust communication training, leadership development, and assignments that give millennials an active role in sharing what they've worked hard to learn will reap the most reward.

The Threshold Generation

We also have to consider that our youngest work generation will have to face problems that no generation before them has had to deal with in terms of global issues, presenting some of humankind's most difficult problems ever, as described above. Helping them to internalize a more optimistic future means that it's essential they feel closer and less wary of colleagues. So once again we need to look for what unifies the generations instead of focusing so much of our thought processes on what separates them. To accomplish

this challenging goal, we can re-contextualize the common generational stratifications and instead look at ourselves as one generation, what we call the Threshold Generation.

The Threshold Generation are those people born before the mid-1990s; a cohort that includes all four of the traditionally identified generations in today's workplace. Thresholders are the last generation on earth that will readily know the difference between a life lived with digital technology and a life lived without technology. We have a line of sight that no other generation has or will ever have, around being able to discern through our direct experience, what needs to be nurtured when it comes to our humanness while we also look for ways to get the most leverage from our tools called technology.

The responsibility of Thresholders is mission critical for the “future of everything.” When we talk to all generations from this point of view, millennials included, most seem to immediately identify with this shared purpose; one that’s beyond themselves and kindles a curiosity to learn how best to collaborate as a whole workforce.

On this aspect of HOME, millennials are by definition the “future of work.” Their leadership is what will ensure corporate coherence that’s most likely to sustain competitive advantage and increase contributions to social good going forward.

THE “WHAT”

One of the first things people ask when they meet in casual conversation is “What do you do?” Our resumes tend to be the main measure of our work identity. But when teams lower Virtual Distance and integrate the “what” with the “where” and “when,” performance soars and meaningfulness makes its way forward.

To give some shape to the many different kinds of work situations we've encountered, below is a small sample of

various descriptions and situational elements of projects and work initiatives included in the benchmarks. We've also included a longer list in Appendix C.

- “I’m leading a department with 10 senior people responsible for commercial strategies and pricing for a product area.”
- “We just invested and set up a Productivity Center in Singapore. Both external and internal customers will be trained. With their skills uplifted, the business is expected to grow by 20% annually.”
- “I’m responsible for the service development in non-captive markets. To do my job I have six Area Managers travelling the world visiting their markets. I’ve had anywhere from 10 to 22 stationed in the many markets spread out all over. The job is to set up professional after-sales organizations from scratch or continue to develop existing ones.”
- “I’m involved in multiple projects with different departments from HQ as well as from local business unit. Sometimes partners are involved as well. The projects are often of a pre-sales nature and involve putting together value propositions or commercial project ideas.”
- “My department is responsible for the development and delivery of a production process line to an R&D department in other countries.”
- “My area prepares balance scorecards for the global units. We have to include various inputs from site heads across the globe.”
- “Relocation of all production from Europe to Asia. It is a big global project with thirty-something members, but I chose to only focus on one subpart of the project containing my own organization in terms of the changes that will be done in my production unit. There is a lot of Virtual Distance even in this subset.”

- “I’m responsible for Lab Technology. We design and implement high-end world-class testing facilities to the R&D departments around the world. I’m responsible for 93 employees and within the organization I have seven managers. The main responsibilities of the different groups are: Project management office, mechanical design, software design, electrical design and automation, measurement technology, calibration, and coordination of R&D real estate including security, safety, and environment. The R&D organization is divided into different organizational sectors: Powertrain, Truck and Car Chassis, and Vehicle Definition. Lab technology delivers what the R&D sectors need to do their jobs.”
- “Building collaboration networks between our support function and the R&D organization going global to about nine sites.”
- “We are developing the conceptual and practical framework of leadership and talent development for the Group. I am the Area VP and my team is responsible for eight business units. We develop common trainings and tools. Historically, we’ve been locally very independent. Senior leadership at the top of the company is now only starting to acknowledge the need to integrate the Group with the larger organization. My responsibility is not in question and is focused on making sure we expose our concepts and process for the best result. Therefore, a lot of consensus building work is being done – discussions and feedback.”

SUMMARY

In this introduction we’ve provided a sense of scope with regard to how broadly Virtual Distance can be used to truly change the way we look at today’s workforce. Here are some of the key takeaways.

- Since the publication of our first book, we now have a much larger database collected over fifteen years.
- Our data now include representation from dozens of industries, 55 countries, and multiple organizational roles.
- We demonstrate how Virtual Distance exerts its influence through causal paths that lead to project success and innovation.
- Our results show that work done remotely is as effective or better than in-person work. We found that remote workers engaged in more helping behaviors, were higher in learning and better at innovation. We found no differences for remote vs. in-person workers in level of trust, job satisfaction, role clarity and success meaning that banning remote work as a corporate strategy won't produce any benefit and is much more likely to create dissatisfaction.
- In our comparison of results for different generations we found that effectiveness in learning was a near linear function with millennials scoring highest.
- On the other hand, we found millennials scoring lower on trust, helping behavior, and employee engagement.
- We suggest emphasizing that we are all part of the “Threshold Generation”; those who've experienced life before and after the pervasive presence of digital technology.

We hope this will inspire you to read further and learn more about what Virtual Distance metrics reveal about how to implement repeatable strategies and tactics proven to work across time, space, and context in situations that in some way, shape or form, are similar to what you encounter. So let's move on to meeting the Virtual Distance Model in more detail.

TABLE I.1 Representative industries.

Advertising	Engineering Paper and Packaging	Management Consulting
Aerospace	Insurance	Manufacturing
Banking & Brokerage	Food Production	Military
Biotech	Global Policy	Mining
Children's Hospitals	Government	Pharmaceuticals
Civil Service	K-12 Schools	Commercial Real Estate
High Technology – Internet Search	High Technology – Infrastructure	High Technology – Software
Clinical Research Outsourcing (CROs)	Legal	Software Development
Construction	Human Resource Management Software	Telecommunications
Consumer Packaged Goods	Human Resources Consulting	Training and Development
Dairy and Farming	Industrial Machinery and Equipment	Universities
Energy and Environmental	IT Outsourcing	Visualization and Collaboration Technology
Executive Education	Policy Consulting	Automotive

TABLE I.2 Representative department and divisions.

Accounting	Data Center Strategy	Marketing
Application Hosting, Communications, Desktop	Enterprise Software	Performance Development
Board of Directors	Environmental Resources	Process Improvement
Brand Engagement	Finance	Product Development
Brand Marketing	Global Insights	Project Management Office
Building	Global Marketing	Purchasing
Business Unit Marketing	Global R&D	Quality, Safety, Environment
Business Operations	Human Resources	Regulatory
Career Services	IT / Office of the CIO	Strategic Alignment and Engagement
Clinical Operations	Infrastructure	Strategic Planning
Contract Operations	Innovation	Tax
Corporate Relations	Learning and Development	Technology Strategy
Corporate Shared Services	Legal	C-Suite / Top Management Team
Creative	Logistics	Change Management
Global Business Services	Manufacturing	Wood Products

TABLE I.3 Representative list of titles.

Chief Practice Management Officer	Assistant Vice President
Account Director	Technology Risk & Account Management
Account Executive	
Communication Manager	Assistant Vice President Project Management
Assistant Clinical Professor, Chief, Assistant Dean of Students, Engagement, and Innovation	Assistant Vice President Requirements Analysis
Associate Brand Director	Assistant Vice President Service Desk
Associate Dean	Assistant Vice President Service Operations
Associate Director, Global Insights	Assistant Vice President Software Quality Assurance & Testing
Associate Marketing Manager	Assistant Vice President Solutions Architecture
Associate Vice Provost for Enrollment	Assistant Vice President Vendor Management
Attorney	Brand Engagement Lead
Assistant Vice President Application Delivery	Business Line Manager
Assistant Vice President Application Hosting	Business Unit Security Manager
Assistant Vice President Application Management & Support	CEO
Assistant Vice President Business Relationship Management	Admin – CEO
Assistant Vice President Business Unit Controller	Manager – Change Management
Assistant Vice President Data Center Strategy Migration	Channel Manager – SME
Assistant Vice President Desktop	Chief Financial Officer
Assistant Vice President Enterprise Architecture	Chief Information Officer
Assistant Vice President Enterprise Data Strategy & Services	Chief Marketing Officer
Assistant Vice President Information Services	Chief of Staff Business Unit
Assistant Vice President Communications	Chief Operating Officer
Assistant Vice President Performance & Optimization	Chief Performance Officer
	Chief Practice Officer
	Chief Practice Services Officer
	Chief Purchasing Officer
	Chief Technology Officer
	Client Director
	Co-Chair Global Litigation

TABLE I.3 (*Continued*)

Co-Managing Partner	Director Sales & Commercial Projects
Communication Manager	Director Sales IT
Controller	Director Services Operations Communication
Corporate Enterprise Architect	Director, Culture & Employee Experience
Country Manager	Director, Head of Simulators, Training and Support
Customer and Sustainability Manager	Director, Investment Services
Deputy Chief Information Officer	Director, Supply Chain
Deputy Head of Division	EVP, Group Management Director
Deputy Sales Director	Executive Assistant
Developer	Executive Communications Director
Digital Business Analyst	Executive Director of Institutional Research
Director – Corporate High Volume Recruitment	Executive Director of Marketing and Communications
Director & Head of Finance	Executive Director of Strategic Initiatives
Director Brand Engagement	Executive Director, Privacy Services
Director Employment Brand	Executive Liaison
Director Global Sourcing	External Group Projects
Director of Assessment and Accreditation	Factory Manager
Director of Career Services	Farm Design Manager
Director of Marketing	General Counsel
Director of Policy, Analysis, and Research	General Manager
Director of Practice Management	Global Account Manager
Director of the Gender and LGBTQIA Center	Global Chairman
Director of the Instructional Support Services Program	Global Chief Executive Officer
Director Order to Delivery development	Global Chief Financial Officer
Director Product and Industry Segment Management	Global Chief Information Officer
Director Production & Logistics	Global Chief Innovation Officer
Director Project Purchasing	

TABLE I.3 (*Continued*)

Global Chief Legal Officer	Head of Risk Management
Global Chief Marketing Officer	Head of Strategy & Market Analysis
Global Chief Security Officer	Head of Strategy and Business Development
Global Chief Talent Officer	Head of Tax Paper Division
Global Director of Communications	Head of the Americas Banking & Finance Practice
Global Projects Director	HR Business Partner
Global Purchasing Manager	HR Learning and Development
Global Technology and Methods Manager	Institute Administrator
GM – Global Operations	Investor Relations
Group Security Officer	Business Engagement Advisor
Head of Building Systems	Hybrid Manager
Head of Category Management	Resource Manager
Head of Department Customer Support	Service Manager
Head of Division Civil Engineering	Jurist
Head of Engineering & Sustainable Development	Laboratory Manager
Head of Enterprise Services	Lead Counsel
Head of Governance	Learning Consultant
Head of HR Business Partners	Managing Partner
Head of Human Resources	Manufacturing/Plant Manager
Head of Inclusion and Diversity	Market Intelligence Analyst
Head of International Purchasing	Partner & Chair of Biotech & Life Sciences
Head of Legal	Partner and Co-Chair of IP Litigation
Head of Maintenance	Partner and Co-Leader of Environment & Energy Practice Group
Head of Manufacturing	Partner and Co-Leader of IP Litigation
Head of Marketing and Sales	Planning & Logistics Latin America Manager
Head of Marketing Execution	Planning & Supply Chain Coordination Manager
Head of Markets Americas	
Head of Markets Strategy & Steering	
Head of Process & Production Development	
Head of Purchasing	

TABLE I.3 (*Continued*)

Practice Group Coordinator	Senior Manager, Customer Experience
Practice Group Leader and Director	Senior Manager, Service Products, Projects & Language
Practice Management Principal	Senior Program Manager
President	Senior Supply Chain Director
Principal and Managing Director	Senior Vice President – HR
Process Excellence & Marketing Manager, Load and Haul	Senior Vice President, Enrollment and Institutional Strategy
Product Line Manager Parts and Services	Site Manager
Product Unit Manager	Social Media Director
Production Director	Software Development Hub Manager
Production Manager	Software Development Supervisor
Project Coordination & Technical Support Manager	Sourcing Development Director
Project Manager	Senior Corporate Technologist
Public Affairs	Senior Manager Product & Industry Segment Sales Area
R&D Program Manager	Studio Leader / Director of Marketing
Regional Director	Supervisor
Sales Director South Europe & TRMEA	Supply chain Manager
Sales Manager	Sustainability
Sector Manager	SVP, Group Management Director
Senior Executive – Strategy, Business Development & Senior Executive – Public Affairs	System Manager Feeding
Senior Legal Counsel	Team Leader
Senior manager – RTG, Vehicle Fluid Mechanics and Temperature Management	Team Leader Engineer
Senior Manager Export & Project Finance	Team Leader Engineering Controls & Software Development
Senior Manager Head of Autonomous Systems	Technical Director, Head of Department Support Solutions
Senior Manager Strategic Product Planning	

TABLE I.3 (*Continued*)

VP Advancement	VP of HR
VP Market Area Central Europe	VP Marketing
VP Market Area Eastern Europe	VP Operations VTS
VP Portfolio Liners and Tubes	VP Portfolio Barn Environment
VP Technology and Innovation	VP Project Management Office
VP Application Hosting, Communication, Desktop	VP Purchasing
VP Corporate Communications and Brand	VP Service Operations
VP Data Center Strategy Migration	VP Technical
VP Enterprise Software	VP Creative Director
VP Field Operations & Safety	VP Sourcing Gas and Process Division
VP IT Operations	VP Strategic Planning Director
VP Marketing	People & Program Support Manager
	Warehouse Operations Manager

NOTE

1. NGO CSW Final Report, February 21, 2011.

— 1 —

The Road to Virtual Distance

In 2002, anecdotal evidence was mounting that people were becoming increasingly dissatisfied with their work and employers. Ironically, the news came at the same time that the most advanced and easily accessible communication and collaboration tools were being adopted. This is still true today. According to The Conference Board, while the average numbers on job satisfaction are moving higher, a closer look reveals that only 38% of employees are satisfied with communication channels. Only 37.5% are satisfied with their potential for future growth, 37% with recognition and acknowledgment, and 36.1% with workload.¹

So 15 years after we started this work, a large portion of the workforce is still dissatisfied with collaboration conduits that form the basis of other essential aspects of work, even though the technology seems light years ahead of what it was then. However, it's not surprising when you consider the rise of Virtual Distance.

MYTH BUSTER

Even though the most sophisticated communication technology defines digital work, a majority of employees are dissatisfied with organizational communication channels.



It's critical to keep this in mind. Since we uncovered Virtual Distance, we've known that although communication technologies are the enabler of virtual work, they are not the main issue when it comes to a lack of job satisfaction. Rather, it's the human-based interactions measured within and between the Virtual Distance factors as a whole that are the main causes of workplace dysfunction. And this has been true for quite some time. In fact, when we look back, Virtual Distance emerged even before smartphones and tablets ignited the meteoric rise of what we now call virtual work.

A BRIEF LOOK AT THE HISTORY OF COMMUNICATION TECHNOLOGY

When we started to research the challenges of virtual work the iPad and the iPhone didn't even exist and the iPod had been on the market for less than a year. Blackberry phones and personal digital assistants (PDAs), often thought of as the first "smart" mainstream mobile devices, didn't show up until 2002, with the number of users peaking at 84 million a little over ten years later. However, market share dropped precipitously after the operating systems iOS and Android eclipsed all rivals.

As we said in the Preface, despite continued developments in smart digital devices (SDDs), Virtual Distance has become a worldwide phenomenon and its impact on outcomes in all walks of life is gaining strength and power.

THOUGHT EXPERIMENT

Think about the evolution of communication technology during your lifetime and ask yourself the following:

- What technologies have you been exposed to and now use the most?

- In what ways have those communication technologies changed or shaped your personal and work relationships? How are they different now?
- In what ways have the intersections between communication technology and your relationships influenced the way you feel about your work and everyday life?



In the early years of the new millennium the prevailing belief was that the benefits of information and communication technology (ICT), as it was called then, were unlimited. It was widely reported, for example, that information technology (IT) accounted for a large increase in productivity.

As seen in Figure 1.1, between the years 1990–2000 labor productivity growth averaged 2.2%, then rose to

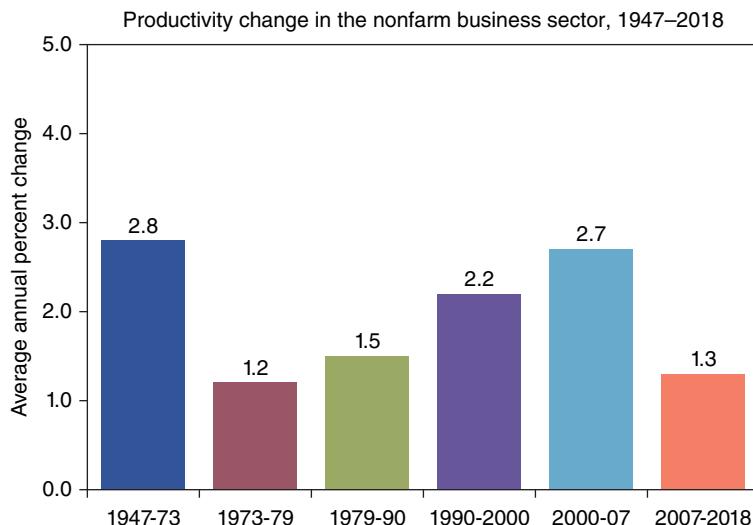


FIGURE 1.1 Productivity change in the nonfarm business sector, 1947–2018.

Source: U.S. Bureau of Labor Statistics (<https://www.bls.gov/lpc/prodybar.htm>)

2.7% between 2000–2007. Many claimed that information technology accounted for much of that gain. However, from 2007 through 2018, from the time the iPhone came to market through present day, labor productivity has dropped to 1.3%, the lowest level since the 1970s. Recall in the Preface that we saw a similar trend in productivity within the CPG Inc. case study.

It's clear then that technology advances alone don't explain what's going on in the workforce. For that we need to understand the rise of Virtual Distance.

RISE OF VIRTUAL DISTANCE

The advent of the internet and digital communication led many to believe that this new world heralded a seamless expansion of global interconnectedness in the workplace. An example is Thomas L. Friedman's *The World Is Flat*. What we were seeing in our research, however, was something entirely different – reports of increasingly dysfunctional behavior. So we began looking into what prior research had to say.

We quickly realized it wasn't going to be a straightforward pursuit. Our initial inquiries turned up many fields of work that should have been informed by one another but were instead disjointed and even contradictory. For example, in the IT academic literature we found the usual terms “computer mediated communications” (CMC), “computer supported collaborative work” (CSCW), “group decision support systems” (GDSS), and other common categories that either defined or were directly related to virtual work. On the other hand, management literature contextualized virtual work mostly in different terms, mainly “virtual teams,” but did not tie back to lessons learned in IT research.

What we found then, and still see today, is a range of studies focused on the same questions spread out across

many different fields. However, even though they look at the same issues, many don't take advantage of other findings. Therefore, possible connections between them or follow-on "aha" moments are missed. Additionally, since most of the studies were based on student samples their usefulness to practitioners was also limited.

So we began asking questions formed from our experience as executives in the corporate world. For the first year and a half we interviewed dozens of people: C-level executives, managers, and individual contributors who had experience with virtual teams. They came from a wide range of industries including financial services, pharmaceuticals, management consulting, telecommunications, and consumer goods. We focused on three key questions.

1. What did leaders consider virtual work?

This seemed a fundamentally important question. Early on it was easy to see that there was no common understanding or definition of virtual work and it included everything from telecommuting to outsourcing. And this is still true: the term means different things to different people, and many other terms like remote work are used interchangeably when in fact each "label" is likely pointing to related but different ideas. And, as is typically true, when we don't operate with a common language or sense-making framework it's hard to see what the real issues actually are or what's causing what.

For example, when asked, "What do you consider to be virtual work?" one manager said,

Well, for us, virtual work means that we have a lot of outsourcing relationships. And I can tell you that many of them are not working.

But as we pursued these conversations further, leaders often came to the conclusion that virtual workers included

anyone connected to the company and each other through a laptop or other mobile device:

I guess you could say that the entire company is made up of virtual workers, even though we have a policy that mandates everyone come into the office. Many people “talk” to each other using only email or IM (instant messaging), even if they physically sit in the office next door.

2. How was management affected by working with virtual teams?

The answer to this question invariably reflected increasing challenges. For example, one executive from a global financial services company told us,

I've thought about this a lot. I'm not sure how to assess if I trust someone in a virtual environment. So I am constantly worrying about where my team is on any given project. I am trying to use old markers to evaluate virtual workers, and this does not work.

Another manager, from a major pharmaceutical company, said,

Since I don't have direct responsibility for some of the people I manage, in addition to the fact that I rarely if ever meet them, it's very hard for me to give an accurate assessment of their performance. This is a huge challenge.

3. What were the most important organizational and strategic implications resulting from virtual work?

People paused and thought about this one for a while because it was difficult to know where to start. Many thought selecting the right business model was most difficult, as typified by this response from a telecommunications executive:

Hierarchy becomes obsolescent in this environment. It used to be that you could delegate work down through the organization. But how do you coordinate and delegate to people you don't have captive, those who work in virtual environments over whom you have very little control, if any?

Another key issue was raised by the CIO at a major bank:

Some of the technologies we use (to get the work done) are so esoteric that above a certain level in this organization, senior executives have no idea what we are doing. So you are entirely on your own based on the principles that, in general, save the company money, get the job done, and try to promote cooperation with colleagues. This is a global corporation with over 100,000 employees. We couldn't possibly understand what every person is doing.

Through these interviews vivid patterns emerged and we categorized them into three groups, as shown in Figure 1.2.

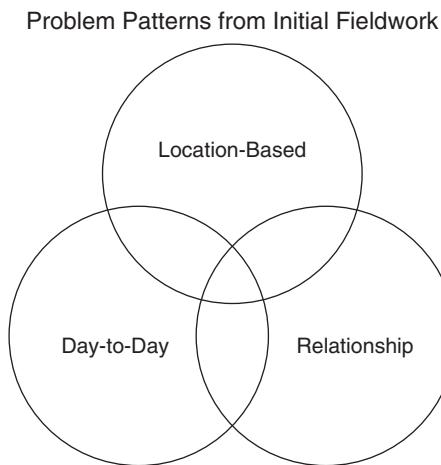


FIGURE 1.2 Problem patterns from initial fieldwork.

1. **Location-based** challenges were those described as communication breakdowns between far-flung workers who may or may not ever meet.
2. **Day-to-day** issues included things like frequent mis-communications, too much multitasking, and technology failures that halted momentum in everyday meetings
3. **Relationship-based** problems were those aspects characterized by a felt sense of disconnection at a personal level.

As we reflected on these areas it became apparent that each of them represented a kind of distance. The issues related to location were clearly tied to fixed distances like time, space, and one's organizational affiliation as compared to others. We called these Physical Distance.

The daily trials and tribulations that constantly frustrated people, like having to respond to too much email and a lack of shared context, created regular and repeating psychological distance. We called this Operational Distance because the form it took could change from one day to the next.

The relationship divides grew out of more deeply rooted intuitive disconnects stemming from cracks in cultural values and other social dynamics that prevented people from developing an emotional feeling of closeness. We called this Affinity Distance.

We also found that one group of issues affected many others and showed up in different combinations that varied between companies and situations. So it was important not to fall into the trap of trying to pull them apart and look at them in isolation as a way to explain things like growing distrust and a lack of goal and role clarity. Based on this early fieldwork it was clear the problems were closely connected

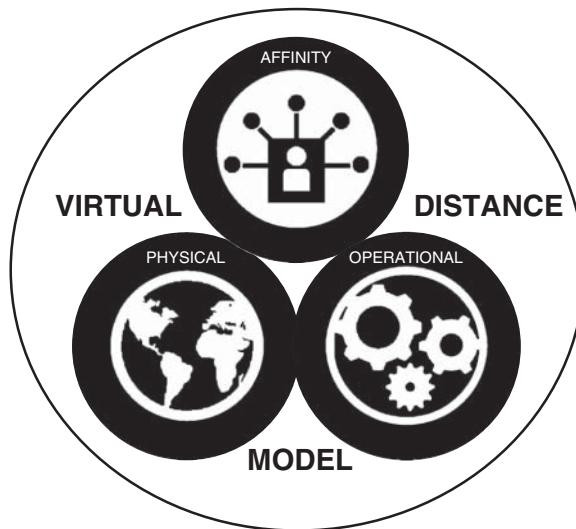


FIGURE 1.3 The Virtual Distance Model overview.

and when combined formed the new phenomenon, Virtual Distance. Figure 1.3 represents an overview of the Virtual Distance Model.

However, we didn't stop there because identifying the people problems alone didn't tell us about the nature or extent to which Virtual Distance was having an impact on business outcomes, like innovation and financials. Our goal was to develop a method that would directly point us toward actionable solutions. This led to the development of the Virtual Distance Index (VDI), a rigorously tested and validated measure of Virtual Distance that could be quantitatively compared against performance to see what, if any, effect it was having.

Initially, we collected several hundred cases across a wide set of vertical segments, internal functions, and different kinds of project teams. As you will recall from the Introduction, in this updated edition we report on a much bigger

data set built over time: 1400 studies, 55 countries, more than three dozen industries, and people representing the most senior to the most junior employees.

And what we originally found we've seen repeated again and again: Uncontrolled Virtual Distance causes negative impacts on the most important aspects of leadership, financial success, and competitiveness.

As you can see from Figure 1.4, Virtual Distance *causes* direct and indirect changes to the business goals of financial success and innovation. As you'll see in Chapter 4, when Virtual Distance is reduced, it significantly improves key performance influencers, including trust, organizational citizenship behavior (helping behaviors), employee engagement, satisfaction, learning, role and goal clarity, strategic

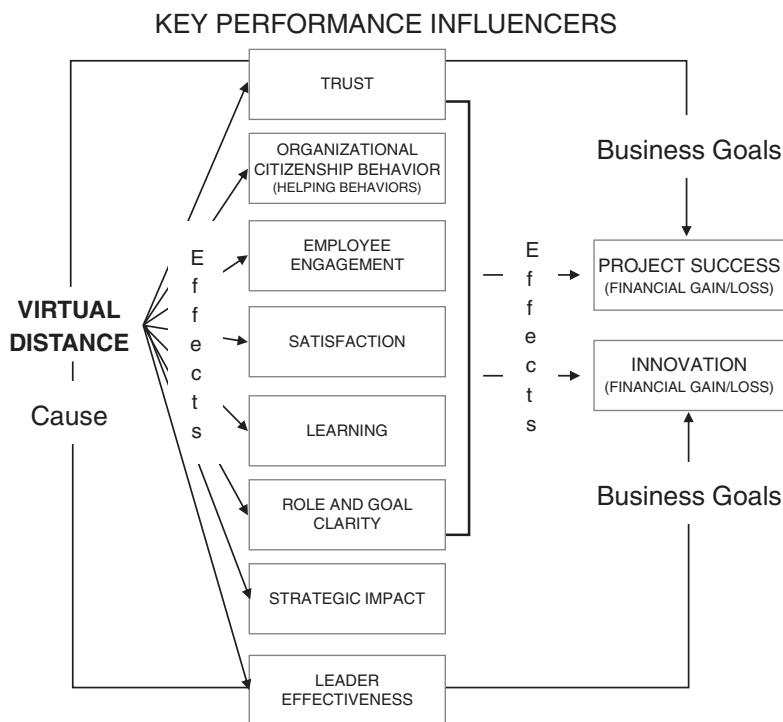


FIGURE 1.4 The Virtual Distance Path.

impact, and leader effectiveness. Virtual Distance has the highest impact on trust and organizational citizenship behavior which leads to many of the other issues.²

In our first edition we presented the Virtual Distance Formula. However, with the many additional years of data presented in this second edition we can now share what we found as a stable and exponential Virtual Distance Ratio (see Figure 1.5).

As can be seen from Figure 1.5, each of the Virtual Distance factors are related to one another by a mathematical ratio. We can now predict not only Virtual Distance impacts on outcomes, we can also predict each of the individual factors, given any of the other factors.

This mathematical and exponential series gives even stronger quantitative ground to the previously reported power of Virtual Distance.

But it goes beyond that.

Virtual Distance analytics gives way to predictive solutions.

When these solutions are applied in specific sequences and sorted on particular priorities depending on unique Virtual Distance patterns, we've been able to repeatedly demonstrate that our prescriptions yield fast-acting and measurable improvements, including financial boosts to the bottom line, more meaningful relationships among

The Virtual Distance Ratio

1:2:**4**

Physical Distance is only $\frac{1}{2}$ as crucial as
Operational Distance which is only $\frac{1}{2}$ as crucial as
Affinity Distance
in terms of both performance and meaningful relationship quality.

FIGURE 1.5 The Virtual Distance Ratio.

disparate team members, and higher levels of motivation to work together toward shared goals.

NOTES

1. <https://www.prnewswire.com/news-releases/labor-day-survey-51-of-us-employees-overall-satisfied-with-their-job-300704255.html>
2. We used a technique call path analysis to derive the model shown in Figure 1.3.

— 2 —

Redefining Distance

Many people ask us why we named the phenomenon Virtual Distance. As we discussed in the last chapter, it seemed to us that many of our initial fieldwork findings pointed to a type of distance – one that was social and emotional in nature.

However, we were not the first researchers to use distance in this context. Therefore, much of this chapter is unchanged because we wanted to keep the background on how distance can be interpreted in a variety of business contexts.

Imagine a time traveler from the 1960s instantly transported to 2020. They would see some truly astonishing things going on: people working and collaborating across cities, time zones, and even continents; messages sent to anyone, anywhere, anytime without using the US mail; other people attending meetings virtually from their offices, hotels, or homes; and the ability to easily keep in touch with coworkers in the oddest places, like air terminals, trains, cars, and golf courses. The world of work in the twenty-first century is a very different place than it was 59 years ago.

It is technology that's enabled these different ways of working. Nobody, not even the best science fiction writers, envisioned how the way that we work would change as much as it has or how rapidly the changes would occur. In

some respects, it may seem that we have eliminated distance as an impediment to working effectively. After all, we can text our colleague in China while we're all looking at the same PowerPoint slides. Or we can have video contact using our laptops or smartphones.

But any funeral plans for the “death of distance” are premature. While our technology allows us to communicate in new ways, distance is still an important issue. As we’ve already discussed, people think of distance as geographic separation. However, as we’ve also discussed it turns out that geographic separation is only part of the distance equation.

Distance can have several meanings. It can refer to separation in time, separation between two points in space, or emotional separation. Our research with virtual teams began with the notion that geographic separation created emotional distance between coworkers. We quickly realized, however, that geographic separation was only one, and not even the most important, element in creating a sense of distance. We coined the term *Virtual Distance* to refer to the psychological distance that results when people interact mainly through smart digital devices (SDDs) – no matter where those communications originate and end. Virtual Distance can vary depending on many factors, real as well as perceived. We’ll discuss these in detail in Chapter 3, but first, let’s consider why the “death of distance” myth creates a slippery slope that is at best misleading when it comes to understanding human behavior.

LOCATION, LOCATION, LOCATION

In the 1970s, Thomas Allen, a researcher at Massachusetts Institute of Technology (MIT), conducted a study on communication patterns. He visited seven different research-and-development laboratories and asked scientists and

engineers to indicate the people they communicated with and how frequently they communicated. Allen then measured the distances between the desks of all of the people in each organization. He found that the probability of communicating with someone became lower as the distance between the desks became higher. Discovering this linear relationship was hardly surprising; what was surprising was that distance mattered only for the first 30 meters. After that, the probability of communication fell to almost zero. This relationship held even after Allen corrected for organizational factors such as group and disciplinary affiliation. In short, if your coworker was in another building, he might as well have been 3000 miles away.¹

Of course, you are probably thinking that Allen's work was done before the internet existed. But as those of us who were working in the 1970s remember, we did have a device called the telephone. So what Allen found cannot be entirely explained away by information and communication technology (ICT), like that used for the internet, email, instant messaging (IM), or smartphones.

Now if we fast-forward 40 years, we see how the issue of physical distance and space has become even more complicated. The "open office" is an idea that has been around since the late 1950s.² Rather than organize employees in separate offices desks are arranged in a large open space without any barriers between employees. Proponents of the open office argued that this arrangement would promote more and richer communication and collaboration. Advocates even suggested that chance encounters in the open environment would lead to more idea generation and creativity. On its face, the idea made some sense, but there was no real empirical evidence to back up the purported benefits. Recently, two researchers decided to collect data that might shed some light on the effectiveness of the open office.³ They conducted two studies with Fortune 500

companies. They looked at over 150 employees who were shifted from traditional workstations to a completely open environment. All employees wore “sociometric badges” that could wirelessly capture all of their contacts with other employees, including the frequency and duration of face-to-face (F2F) interactions. The researchers were able to track interactions before and after the transition. The results were enlightening. F2F interaction dropped by about 70% and email and IM increased dramatically. As the authors noted, “electronic interaction replaced F2F interaction.” So, paradoxically, the open office reduced Physical Distance but increased Virtual Distance. More importantly, management also reported that productivity declined after the move to open architecture.

MYTH BUSTER

Open office spaces have been shown to decrease in-person interaction and increase Virtual Distance.



Let's revisit another study that looked at how the effects of “perceived distance” influenced the interactions between two people. The study randomly assigned people to one of two conditions. In the first condition, people were told that they were communicating with a partner who was a few miles away, in the same city. In the second condition, people were told that the partner was in a city 3000 miles away. The results showed that the perception of distance had a significant effect on the subjects. When subjects thought their partner was far away, they were less likely to cooperate with them, more likely to deceive them, and less likely to be persuaded by them. This was true whether the interaction was via IM or videoconferencing. In reality, the partner was in the next room, so it was simply the cognitive interpretation or feeling of distance that produced these results.⁴

So much for technology bringing about the “death of distance”!

Physical or geographic separation is clearly an important factor in the kinds of relationships that we develop with others. But why does *thinking* that someone is far away change our behavior? One reason is that we expect future interactions and especially face-to-face meetings to be unlikely if someone is 3000 miles away. If we behave in a disagreeable way, we’re not likely to be confronted in person. Therefore, there is less consequence and meaning ascribed to interactions that are not physically near.

A second reason is emotional sensitivity. Consider the following scenario: Imagine you’re in a control room monitoring rail traffic. The computerized system allows you to view obstacles on the tracks and to control switches. In a location 100 miles away, you see that one of the trains is approaching the left side of a fork in the track at top speed. On the left side, five rail workers are fixing the track. On the right side, there is only one worker. You must decide whether to switch the train to the right side or leave the train heading toward the five workers.

This is a rather unpleasant moral dilemma, but research shows that most people would throw the switch and save five lives at the cost of one. But now consider a modified version of the scenario: Imagine that you are on a bridge watching a train hurtling toward five workers just over a ridge. If the train doesn’t stop, the workers are sure to die. You happen to notice a large man standing precariously on the bridge watching the train. If you sneak up on him, and push him off the bridge, he will fall to his death onto the track. But, because he is so big, he will stop the train. You must decide whether to push him over or allow the five workers to die.

This second dilemma is even more unpleasant, but the consequences of the choices are identical. In this case,

research shows that few people would choose to push the big man to his death, even though it would save five lives.

Modified versions of these two scenarios⁵ have been used to study moral and ethical behavior. In an attempt to understand why people react so differently to these two scenarios, researchers at Princeton University used magnetic resonance imaging (MRI) scans to show that the first scenario activated areas of the brain typically involved in making logical, impersonal decisions, such as choosing a route for a trip. But the second scenario activated an entirely different area of the brain – one that is activated when strong emotions are involved.

Virtual Distance creates similar differences in the emotional reactions of individuals working together. When Virtual Distance is low, the emotional ties with coworkers are stronger. Low Virtual Distance also means that people are more likely to trust their coworkers and feel motivated and committed to the mission. As we shall see, this doesn't mean that people need to be collocated in order to reach a state of low Virtual Distance. In fact, our data clearly show that two people working in the same building can have high Virtual Distance between them. The greater the Virtual Distance among the members of a team, the more problems – miscommunication, lack of clearly defined roles, even personal and cultural conflicts – the team will experience.

THOUGHT EXPERIMENT

Think of a friend you have known for a long time but haven't seen in a while because she lives far away. When you do speak with her on the phone or read an email from her, it is as if you just saw her yesterday and are simply picking up where you left off.

That's an example of low Virtual Distance when geographic separation is high.

Now think of someone you work with, perhaps someone in the same building a couple of cubicles or offices away. You rarely talk to her, and when she needs to talk to you, she sends you an email rather than walking over to your desk. When you are face-to-face, you can't help feeling a bit uncomfortable – after all, most of your communications have taken place through the computer, and you don't know each other at all.

That's an example of high Virtual Distance when geographic separation is low.



This thought experiment underscores the Prime Principle of Virtual Distance: Everyone today is virtual, therefore Virtual Distance impacts everyone, everywhere. In organizations in particular, Virtual Distance is a state that can have an effect on the entire enterprise ecosystem, from the boardroom to the bench, from customer service to the company's customer's customer. While there are such things as "virtual teams," which are usually described as a group of people who are geographically separated, sometimes culturally different, and who use a lot of digital communications, they are not the only subset of corporate resources that could benefit from overcoming Virtual Distance.

Some of us can remember when most of our interactions were with people in the same building, email wasn't used that much and most of our communications were synchronous. The U.S. Postal Service still handled a lot of our communications and we still could use the excuse that the report was "in the mail."

Of course, all of that has changed and the changes have come about quickly. Email, for example, has been around only about twenty-five years. The first iPhone was released in 2007. At the same time, other changes have been taking place. Increased globalization; increased cultural,

organizational and national diversity; a movement from hierarchical to networked organizational structures; and ever-increasing connectedness are occurring simultaneously.

GLOBALIZATION, DIVERSITY, AND NETWORKS

Here's a description of a company that might sound familiar. It has widely dispersed teams of managers who rarely see one another in person and who communicate mostly asynchronously. They outsource critical parts of their business to individuals whose language, culture, and values are quite different. This is a pretty good picture of most global businesses today, but we're describing a company that began in Great Britain over three hundred years ago.

The Hudson's Bay Company is best known today for its Canadian Department Stores but in the 1700s and 1800s Hudson's Bay was the premier fur-trading business in the world.⁶ Managers were located in widely distant outposts throughout North America and, because of the distance and geographic dispersion, were given fairly wide latitude and discretion in decision-making — an example of what we might term today as *empowerment*.

Outsourcing was also important for Hudson's Bay. All of the furs came from trappers who were Native American peoples in what is now the northern United States and Canada. Although they didn't have smartphones, Hudson's Bay employees faced many of the same challenges facing today's managers. Geographic distance, cultural differences, asynchronous communication, and coordination and interdependence of tasks were issues that affected the Virtual Distance between the Hudson's Bay managers.

The example of Hudson's Bay shows that globalization is not a new phenomenon. The Roman Empire was a global institution, at least for the part of the globe that

was known at the time. For centuries, the empire was able to manage geographically dispersed and culturally distinct social and economic groups quite effectively. The Silk Road during the Mongol Empire is another example. What is new is the pace and pervasiveness of globalization over the past several decades.

Researchers at the Konjunkturforschungsstelle Swiss Institute for Business Cycle Research in Zurich have been carefully tracking the growth of globalization since 1970. They devised an index that combines economic, political, and social indices of globalization into one Konjunkturforschungsstelle index of globalization, which they (thankfully) call the KOF Index. Economic factors include long-distance flows of goods, capital, and services, as well as information and perceptions that accompany market exchanges. The social dimension measures the spread of ideas, information, images, and people, while the political dimension captures diffusion of government policies.⁷

Technology is clearly one of the most important factors in increased globalization. We can be thousands of miles apart, and we can easily transfer large amounts of data at high speeds, engage in relatively clear communication, and even work on the same document at the same time. But while some things are easy across great distances, other things may not be that easy. We might have to build relationships and work with outsourcers, team members, and employees whom we have never met (and may never meet) face-to-face.

Working across international boundaries carries additional complications. Coworkers may be from very different cultures with different communication styles, beliefs, and attitudes. This increase in diversity has many benefits. Understanding local cultures may be important if we're planning to launch a new product, for example, and the different knowledge, skills, and ways of thinking inherent in

multicultural teams can be an advantage in developing new approaches to solving business problems.

Decentralization has some great benefits. When employees and teams are empowered, they can make decisions more quickly. And speed can be critical for getting new products out, where being first to market can be a big competitive advantage.

But decentralization also means that the way we communicate has changed. Instead of having to go through a chain of command, communication can be more direct between people, teams, and organizational units. It also means that informal networked structures have become even more important than they used to be. Networked structures more appropriately describe the relationships between multinational organizational units and their suppliers, for example, but also describe the relationships between people working in those structures. Social Network Analysis (SNA) offers a useful set of tools for describing the relationships between organizations, subunits, and individuals within these networked organizations. As we will discuss later, many SNA concepts have direct implications for Virtual Distance.

THE YIN AND YANG OF WORK

Antonio Damasio is a neuroscientist who has studied how our brains function when we make decisions.⁹ Case studies of brain injuries led Damasio to an interesting conclusion. When we make decisions, our brains do two things: conduct an analysis of the situation and alternatives involved in the decision, and conduct an emotional evaluation of the situation and the options. It turns out that if the connection between the emotional center and the analytic center is interrupted, we can't make a decision. We might be able to conduct a thorough analysis of all the pros and cons,

but without the emotional connection, we simply can't choose.

What does brain functioning have to do with the way we work? We'll explore this a great deal more when we get to Soul-Based Leadership. But for now, we can think of work as nothing more than a series of decisions. Some of these may be highly programmed and may not involve much thought. But most of the more interesting work that we do involves using our brains – both the analytical and the emotional sides – to make decisions. The Chinese concept of yin and yang, used to describe two opposite but complementary forces, nicely describes this dichotomy. Many managers tend to be great at the analysis side, but not so great at connecting to the emotional sides of the employees who are doing the work. This dichotomy has appeared and reappeared in different guises during the twentieth century in the ideas and theories of social scientists who study work behavior.

One of the most important examples of this dichotomy is the difference between the approaches of Frederick Winslow Taylor and Elton Mayo. In 1911, Taylor published *Scientific Management*,¹⁰ which laid out a new approach to making work more efficient by designing tools and procedures that could optimize work efficiency. Taylor's view was that the worker using the tools was a rather inefficient, but unfortunately necessary, component of production. His views of the average worker were expressed in his testimony before Congress in 1913: "I can say, without the slightest hesitation, that the science of handling pig-iron is so great that the man who is . . . physically able to handle pig-iron and is sufficiently phlegmatic and stupid to choose this for his occupation is rarely able to comprehend the science of handling pig-iron."¹¹

Taylor was a mechanical engineer. He invented the field of industrial engineering. Engineers are generally trained to approach problems analytically and find technology-based

solutions. While this approach has led to many important advances, it has also persistently ignored the attitudes, values, and emotions of the human beings actually performing the work. In fact, the persistence of this phenomenon was remarkable throughout the twentieth century, even influencing our current work environments.

Of course, Taylor was not alone in his view of the worker. In the 1890s when Taylor started his studies, the standard workweek was about 60 hours over six days,¹² with no health insurance, pension plans, or overtime. Concerns about the “feelings” of workers were not exactly a priority. But in the 1920s, this bleak view of the worker as just another cog in a machine began to change.

The signal event actually began as another effort at “Taylorism.” Industrial engineers at the Western Electric Company were interested in finding the optimal level of illumination for production workers. They conducted the first few studies at the Hawthorne Works in Cicero, Illinois, in the 1920s. They selected a group of workers and increased the illumination, or lighting, in the room. Productivity went up as a result. They increased it some more, and productivity went up again. They then decreased the illumination, and productivity went up even more. Obviously, something more than illumination was causing the changes in productivity. A consultant, Elton Mayo, was brought in to help figure out what was happening.

After looking at the results of the illumination studies, interviewing the workers, and conducting his own research, Mayo concluded that there was an entirely different set of factors involved in the increases in productivity. He found that the interest and sympathy of the supervisor and the attention paid to the workers had impacts on motivation, for example. He also found that when workers were given a bit of autonomy, they were able to see themselves as part of a team, which increased their sense of control and increased their commitment to the work. Mayo’s conclusions may

seem rather obvious today, but in the 1920s these views were radical – so radical that US business and industry pretty much ignored the findings.¹³

The distinctness between analytical tasks and emotional behavior continued. In 1950, for example, a series of research studies at Ohio State University concluded that the two major factors that distinguished the performance of leaders were initiating structure and consideration. *Initiating structure* is a shorthand term for analysis, planning, and problem-solving; in other words, the analytical side of work. *Consideration* refers to the leaders' concerns for the social and interpersonal side, that is, the emotional side. The Managerial Grid that emerged in the 1960s used a similar concept and rated leaders on concern for productivity and concern for people. Figure 2.1 shows that these two factors emerge consistently in research on leadership, trust, prediction of work performance, job satisfaction, and project performance.

VIRTUAL WORK AND VIRTUAL DISTANCE

As we've seen, geographic distribution and globalization of work are not entirely new phenomena, but the internet, broadband, and other technology allow us to communicate and work together in ways that were not possible before their combined arrival.

Working virtually creates new challenges for communication, leadership, and teamwork. Like Frederick Taylor, modern managers seek solutions by designing better tools. In this case, the tools might be collaborative design software, high-speed video, or a better conferencing system. But, also like Taylor, most see technology as the solution when it may just be spawning other problems for human well-being.

FIGURE 2.1 The yin and yang of organizational theories.

Theory or Research	Analytical (Yin)	Emotional (Yang)
Ohio State Leadership Studies (1950s)	Initiating structure: planning, organizing, problem solving	Consideration: Leaders must consider the social and interpersonal needs of followers
Theory X and Theory Y (1960s)	The manager's job is to structure the work and energize the employee	People are self-motivated by the satisfaction of doing a good job
Managerial Grid (1964)	Concern for production	Concern for people
Full Range Leadership Theory (1980s)	Transactional leadership	Transformational leadership
Project Management Research (1990s–2000)	Budgets, schedules, and milestones	Project spirit, leadership, and behavior
Theories of interpersonal trust (1990s)	Cognitive trust – trust based on rational expectations	Affective trust – trust based on relationships
Prediction of work performance (employee selection research)	Cognitive ability	Personality and emotional/social intelligence
Job satisfaction	Satisfaction derived from work content	Satisfaction derived from peers

Our research and experience in consulting with diverse organizations have led us to the conclusion that improving the effectiveness of the virtual workforce does not lie in better technology. A former director of Stanford's Media X lab says, "The more Virtual Distance, the less sophisticated the software should be."

So how does a company go about understanding whether Virtual Distance is an issue within their organization? The first thing they need to do is to meet Virtual Distance. This provides an important structure that allows a basis for effectively tackling the myriad and complex issues that arise in virtual teams no matter where they're located. The next chapter introduces the reader to the details of the Virtual Distance Model and provides the scaffolding for dealing with its challenges.

SUMMARY

1. The "death of distance" is a myth. The truth is that we continue to grapple with distance-related problems based on geographic separation as well as emotional separation – just as we have for centuries.
2. Physical Distance can create barriers to communication even with technology-enhanced collaboration tools. Here are just a few examples:
 - 30 meters was found to be the physical limit for face-to-face communications in the mid-1950s, when telephones were available to bridge geographic distance.
 - Half a century later, in 2004, studies found that people cooperate less, deceive more, and are less persuaded when just the "perception" of physical distance increases.

- Studies of “open offices” showed that Virtual Distance can increase even when coworkers are in close proximity.
 - Ethical choices and emotional attachment are both heavily influenced by physical closeness.
3. Globalization of work and outsourcing are not new concepts, but the extensive use of high-speed information and communication technology have made distance issues more acute in the twenty-first century than ever before – a critical driver for renewing our understanding of how distance plays a role in the context of our new world of work.
 4. Emotional as well as analytical or task-related considerations have been competing for space in management theories since the dawn of management science itself. Perceived distance brought on by ubiquitous technologies has a profound and measurable effect on both.
 5. *Virtual Distance* is a new term we have coined to describe the distance-related factors that affect us most in the Digital Age. These include, not surprisingly, a combination of geographic as well as social and emotional distances and feelings of separation, which can inhibit collaboration, communication, and success.

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— 3 —

Meeting Virtual Distance

In Chapter 2, we talked about distance and the major role it plays. As we discussed, we've discovered over the past 15 years that Virtual Distance predictably gets in the way of effective collaboration in the Digital Age.

Virtual Distance can be described as a felt sense of distance that grows unconsciously when we rely heavily on mediated communications through smart digital devices.

It's different than other kinds of distance in that it has qualities that can result from both real distance, like physical separation, and perceived spaces that develop from social gaps. This feeling of detachment can also happen day-to-day as people attempt to balance enormous amounts of work with building meaningful relationships in any given moment.

As we saw in the Preface and will discuss in more detail later on, Virtual Distance can cause havoc with financial results, competitive standing, as well as other important aspects of work. But before we get into those details, it's important to understand what contributes to this sense of separation among us. This chapter introduces you to the specific parts of Virtual Distance that make up the Virtual Distance Model. It also lays out the foundation on which solutions can be developed to increase performance, improve trust, enhance innovation, and get

better bottom-line results from today's workforce – all of whom are virtual.

Recall the **Prime Virtual Distance Principle:**

Everyone is a virtual worker, therefore Virtual Distance impacts everyone, everywhere.

CASE STUDY

The Chief Information Officer (CIO) of a large international bank had been struggling for many years to understand what was working and what wasn't among his virtual workforce. During that time, he'd developed a large pool of virtual workers including in-house staff housed in distributed and sometimes remote locations throughout the world as well as low-cost development resources from outsourcing companies throughout India and China. During our interview with him, he shared an approach he was using to get a grip on virtual workforce obstacles. He'd tracked and collected data on over fifty project criteria for three years, hoping to pinpoint patterns that would lead to virtual team improvements. His methodology was quite innovative. However, after 36 months, much to his dismay, it revealed little about why projects succeeded or failed. We spent some time showing him how the Virtual Distance Model could be used to more accurately and quickly uncover the problems that were at the root of his concerns about project success.



Virtual Distance is an easy concept to grab hold of at first. Everyone has some direct experience with either low Virtual Distance or high Virtual Distance. The thought experiment in Chapter 1 revealed one way to get to know Virtual Distance.

But Virtual Distance has an underlying and identifiable structure, as shown in Figure 3.1. It is this structure that allows us to directly measure it. It's like the "dynamics

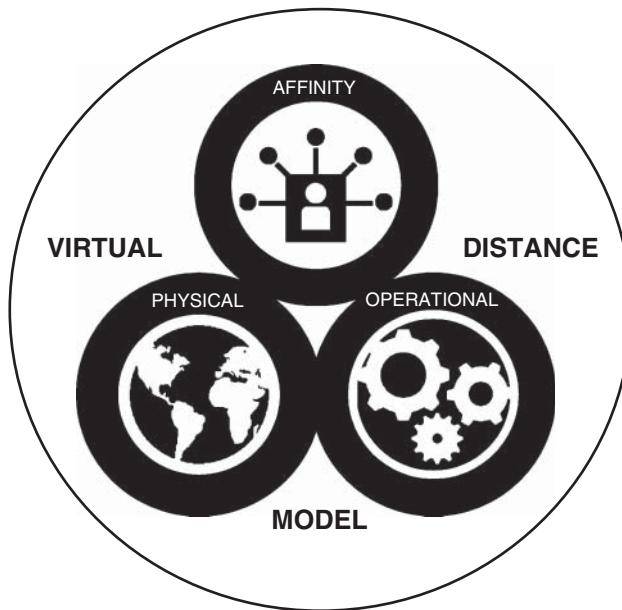


FIGURE 3.1 The Virtual Distance Model.

DNA” of the virtual workforce. So let’s take some time to walk through the Virtual Distance Model to better understand the forces at work that measurably make us “feel” far apart.

As we introduced in the Preface, Virtual Distance is made up of three major pieces:

1. *Physical Distance* – those factors that are fixed in time, space, and organizational affiliation.
2. *Operational Distance* – the day-to-day noise in the system that gets in the way of meaningful, fluid communications.
3. *Affinity Distance* – the issues that block the development of deeper, long-lasting, and substantial relationships built upon shared values and important human interdependencies.

MEETING VIRTUAL DISTANCE PHYSICAL DISTANCE

Physical Distance (see Figure 3.2) represents the many varied ways we're separated by real things including geography, time zones, and organizational affiliation; for example if one team member works for manufacturing and another for research and development there is Organizational Distance between them by virtue of working for different departments. As discussed in Chapter 2, globalization has dramatically altered the extent to which these kinds of immoveable distances exist between us.

According to a Stanford University study, one out of every five professionals has never met their manager.¹

Around 20% of the worldwide workforce have never met their manager.

Imagine, 20% of the workforce begins each day with basically no idea about who they report to aside from the occasional phone call, maybe a bio and picture on a web site, and a lot of emails. What's even more astonishing, according to the same research, is that over half of those who have never met their managers don't think they'll ever meet.



FIGURE 3.2 Physical Distance.



More than 50% of those who have never met their manager don't think they will ever meet.



So a large part of the virtual workforce starts each day without any expectation that they'll ever see their manager in person.

This lack of an anticipated future encounter may produce behaviors that were never accounted for in traditional management models and end up causing some unwanted outcomes. For example, some of the most difficult things to do are to say “no” to a manager, ask for a raise, or bring a problem to them under any circumstances. And it becomes even harder if there's no prospect of ever meeting them. So leaders who expect their virtual resources to raise important issues may instead be blind to what's actually going on because those who they're counting on to point out problems are not likely to do so.

Some think that being virtual makes it easier for people to speak their minds.² But according to Bradner and Mark (Chapter 2), just the “perception” of distance causes dysfunctional behaviors like deception and less cooperation.

So if many believe that they might never see their manager and also have a hard time saying “no” or pushing back in any way, it's no surprise that Physical Distance can get in the way of problem-solving, bringing new ideas to the table, and other substantial conversations that smooth the way for high performance.

There are three components of Physical Distance included in the Virtual Distance Model:

1. Geographic Distance
2. Temporal Distance
3. Organizational Distance

Geographic Distance

Geographic Distance is simply what it says – the distances between us that can be measured using inches, centimeters, feet, miles, kilometers, and so on. Geographic Distance is the factor which gets the most attention among managers and strategic leadership.

For example, executives at HP, Yahoo, and IBM have all tried to ban remote work because they believed that by getting rid of Geographic Distance they would end up with teams that produced better work. But they didn't. Because it turns out that Geographic Distance is neither necessary nor sufficient to create Virtual Distance. And while it's counterintuitive, it's the other parts of Virtual Distance which are the main causes of today's workplace conundrums. Nevertheless when geographic separation is at issue, leaders should consider that these "fixed" conditions can challenge us in many important ways, including finding methods that help develop and maintain effective communications.

It's tricky because when we're geographically distant, our innate social skills are unavailable. For example, when someone we're talking with face-to-face doesn't look us in the eye, we suspect they may be hiding something. This inherent suspicion, which is usually quite accurate, results from our natural original human communication mode; we derive understanding through visual cues like facial expressions and body language. But when we can't see another person "live," it's not possible to use the senses we're born with to decode someone's intentions or sincerity. And when we can't accurately decipher others' behaviors, we don't react naturally or even appropriately.

As we look back over the past 15 years of Virtual Distance client projects, video calls have become much more common. So we often hear that since we have video, we

can better pick up on cues. But that's not necessarily true. The camera often distorts faces just enough to make our ability to pick up slight facial movements very difficult. In another context, many people don't like being seen on video so they either turn it off or, if peer pressure or protocol requires they leave it on, they sometimes appear uncomfortable for reasons that have nothing to do with the work. Either way, as a receiver, we unconsciously build a rather false interpretation into our impression of team members' abilities.

Another problem is that we're only seeing a "talking head" that may be in front of a false façade that hides much-needed context about the environment. For example, some people sit in front of a "set" of sorts, pushing furniture and paintings around so they're projected against a pleasant background for the receiver's benefit.

But the reality might be that they're in a tiny apartment feeling cramped. Sometimes dogs bark, babies cry, or ambulances rush down the street, all creating distractions that pull us away from the in-person conversation, disturbing the cadence and creating invisible Virtual Distance. So we shouldn't assume that just because we use more video we are necessarily solving the problem of getting "face-to-face" and intuitive cues that solve this particular issue.

Of course sometimes video is very helpful. But let's not forget that the human sensory system is quite sensitive and attuned to small things that can change our perceptions of others.

A lack of physical proximity makes us all a bit uncomfortable. For example, a high-ranking military official who had used virtual teams to implement a major organizational transformation said, "Virtual presence is actual absence." After having worked with people he wasn't close to, he'd grown pessimistic about the value of such a workforce complement.

However, in our original research as well as our current consulting practice, we've encountered many people who feel that meeting just once, or at critical times, can help minimize the effects of geographic gaps. One research participant said, "While I think working face-to-face is the best, close relationships can form with people far away. The key is to build up trust by managing Virtual Distance in every interaction. I find that having just one in-person meeting at the beginning of a project can be an enormous help to establishing good rapport with others when we're not together."

However, we've also learned that even though team members are geographically separated, they can still develop close personal relationships that override the fact that they're not in person. For example, one of our closest collaborators is a well-known neuroscientist and K-12 policy maker in Australia. We've been working with him for more than twelve years and have never met! And yet some of the papers we've written together have been our most successful and have gone viral across the globe. We consider him a good friend. He also uses Virtual Distance solutions to improve education and learning strategies in his country and global region. So Virtual Distance can be quite low between colleagues who never meet.

MYTH BUSTER

Just because there's Geographic Distance between team members, doesn't mean they have high Virtual Distance.



In summary, Geographic Distance can contribute to a sense of being far away because, in fact, one is far away. So we can't expect people will be able to work through communication problems the way they would if they were

in person. However, it doesn't mean it can't be done well. In today's modern workplace, it's often impossible or even undesirable to get together most of the time. But, as we'll see later on, there are identifiable times when it's best to be in person. Geographic separation can be overcome in these cases fairly easily. In addition, by lowering Virtual Distance in other factors, geographic separation often becomes a non-issue.

Temporal Distance

Temporal Distance is the separation caused by time zone differences as well as disparities in work schedules. The most significant issue that arises from time-related problems is coordinating work. Getting tasks into the right sequence and developing a steady rhythm among virtual team members is important for high-quality performance. But Temporal Distance can disrupt this effort.

For example, if one person is located on the East Coast of the United States and another is working in Beijing, China, the time difference between them is at a maximum because they are literally 13 hours apart. One person is probably sleeping while the other is working – under “normal” circumstances, that is. We say this because sometimes, to overcome time zone differences, managers schedule meetings that occur in the middle of the night. While working this way might help to solve problems in the moment, it can cause unexpected detriment to team cohesion.

Regularly scheduling meetings that upset people's normal paces (body clocks) can also be interpreted as disrespectful. For example, at one of the largest beverage companies in the world, we worked with a team based in Kenya that reported to an organization in the United States. She described how frustrating it was for her team to

wait for leaders from HQ when they were late to meetings. Sometimes they would have to stay in the office until late into the night, missing meals and time with their families.

Technology gives us the ability to work all the time. However, this 24×7 capability often overshadows the physical and emotional needs of human beings and those aspects of a lived life that keep us safe and healthy; they become invisible and when breached can weaken team relations and have negative impacts from the more benign to the more serious.

From a practical point of view, time zone and work schedule differences can make it hard to get questions answered quickly. For example, at a large financial services company, software application development was done using resources separated by multiple time zones. There were people based in New York, South America, Eastern Europe, India, and China. When one had questions for the other, they'd communicate via email and then have to wait 24 hours for a response. Productivity suffered and frustration soared, especially under tight deadlines. Days and sometimes a week or more could pass before a single issue was resolved. Project momentum slowed, and work was delivered late and over budget, costing the company millions.

In summary, Temporal Distance specifically contributes to the sense that we're not well coordinated and can't establish any kind of predictable or regular rhythm. Therefore, solving Temporal Distance requires managers to be respectful of individuals and establish reliable assurances for the team about when things need to get done and by whom. Only then can those who feel far away based on temporal displacement begin to experience more closeness by anticipating work schedules that prove to be dependable.

Organizational Distance

Organizational Distance is a sense of separateness brought on by differences in organizational affiliations. For example,

at a consumer products company, our client was the director of HR for one of their major brands. Her team included members of multiple business units including research and development, sales, and marketing. So by definition, the HR director was organizationally distant from her clients inside the organization and these affiliation gaps fueled higher Virtual Distance.

Organizational Distance is widespread these days because many employees are required to work across organizational boundaries with people who don't belong to the same part of the organization and who are perceived to be outside "inner circles." This can lead people to divide the world into an "us" versus "them" or "in-group" versus "out-group" mental model. It's the Yankees versus the Red Sox, only in a virtual work context.

If this kind of attitude develops, it can quickly fuel distrust and erode productivity, even more so when working virtually because the problem is harder to see and therefore more difficult to address. Without disconfirming information readily available in what would be considered more traditional work complements, group biases can deepen. For example, those in the "in-group" think that everyone, including those in the "out-group," perceives the world the same way they do when, in reality, that's not likely. Left unattended, Organizational Distance intensifies these false beliefs because it's almost impossible to accurately confirm or disconfirm any notion about others in virtual workspaces. As a result, collaboration roadblocks often lead to team failure.

CASE IN POINT

In 2004, NASA launched a project to develop the Orbital Boom Sensor System, which was designed to inspect the heat-shielding tiles for damage once the shuttle was in orbit. The complex project had a strict, hard deadline – a spring 2005

launch. The NASA team in Houston subcontracted the development of a key piece of equipment, the integrated boom, to a Canadian firm. Organizational Distance went unmanaged and remained high throughout the project, resulting in a loss of trust and communication. This played out when the Canadian firm fell behind schedule but never let NASA know. Because all of the pieces had to come together at the same time for the shuttle to make the launch date, the result was a project in crisis. Fortunately, the problem was resolved through the efforts of a contracting officer who served as a personal liaison or “boundary spanner” between NASA and the Canadian company. His personal relationships with people in both organizations helped to reduce some of the Organizational Distance that had developed, and the project was completed on schedule.



In summary, Organizational Distance creates an impression of space because of differences in formal associations. We find people feeling as though they’re not part of the same team even though they’re assigned to work together toward the same ultimate goal. This is what has been known for a long time as a major problem with organizational silos. But when set behind virtual curtains, these differences become even more impenetrable. Solutions to reduce Organizational Distance are based on bringing the realities of group differences to the surface and from there, forming a common group identity which can be shared—regardless of where team members work or who they report to directly.

Summary – Physical Distance

Physical Distance creates the sense that others are far away because, for the most part, they really are. But as we

discussed, Virtual Distance can be present in high levels even when there isn't any Physical Distance whatsoever. And the opposite can be true: those who have high Physical Distance can have low Virtual Distance overall. As we've discovered over time, the other two parts of Virtual Distance, Operational and Affinity Distance, demonstrably play a much greater role in damaging results. However, these strands of the dynamics DNA of virtual work can be turned around into higher performance when Virtual Distance solutions are applied.

OPERATIONAL DISTANCE

Operational Distance (see Figure 3.3) refers to those issues that get in the way of fluid communications day to day. It manifests as a sense that team members are on different playing fields. For example, have you ever had a “conference call from hell” when, after it was over, you wondered if you lived on the same planet as the people on the other end? If so, you were experiencing Operational Distance – the impression that there’s no connection between you and your counterpart. Day-to-day communication problems,



FIGURE 3.3 Operational Distance.

technology snags like the inability to keep a stable connection on a video call, and work overload without the right support structures in place all pose major challenges and cause Virtual Distance to rise.

However, Operational Distance is not tied to a specific place or time – it's made up of a mix of troubles that plague team members from moment to moment. Once identified, Operational Distance can actually be controlled by team members and project leaders.

To understand how Operational Distance arises, we need to take a closer look at three key issues:

1. Communication Distance
2. Multi-Load
3. Readiness Distance

Communication Distance

Communication Distance often shows up as a sense of separation born from less-than-meaningful interactions. For example, have you ever received an email from someone and had no clue as to what they were trying to say, so you turned your attention to other things? Or perhaps you left a message for someone to answer a question, and when they responded their reply was about something completely unrelated.

When these kinds of things happen people think the other person just doesn't "get it." Miscommunications like these are a hallmark of Communication Distance, when in fact, the reasons likely have nothing at all to do with the person's skills or abilities; in fact we've found they almost never do.

THOUGHT EXPERIMENT

Think about sitting down and writing an email. Ask yourself a simple question:

Who are you talking to?

Who are you really talking to? Think about it.



Like most people we ask, you're likely to eventually realize that, in fact, you're actually just talking to yourself! It's true. At that moment in time, you have absolutely no context around what the other person may have been thinking about or feeling at the time they wrote it. And they will do the same thing when reading an email from you.

Without realizing it we have lost the context around the other person when most of what we do all day is type things into the computer. So we make assumptions that are almost always wrong, assumptions we think represent the other person. These kinds of daily reactions and jumping to false conclusions about other team members increase feelings of disconnection. It often then leads to frustration, aggravation, and an insidiously growing unintended consequence: a feeling of being more socially isolated. And this often leads to lower job satisfaction for the individual and lower productivity for the organization.

A number of forces are at work in virtual work communications. When we're mediated by a screen, we don't discover shared context from the outset. As the thought experiment above reveals, we're not really thinking about what the person will need to know to interpret what we're saying and we're very bad at guessing.

For those who are remote or sending messages to a colleague in the next cubicle, we don't share, nor do we pay

attention, to a common physical space, so the contextual cues that can inform us of what someone might mean in an actual setting disappear. If we've never met, or don't speak that often about topics that would give us hints into the way people think about things, there's no way to know if we share a mental context either. And yet shared context is the single most important part of meaningful exchange.

One of the most vivid comparisons came from a former admiral in the US Navy. At the time, he held a civilian post and worked on many virtual teams. While serving in the Navy he commanded a fleet of five carrier ships, upon which fighter jets would land. He described his experiences with virtual team communications using the following story.

I would never send a rookie pilot to land a fighter jet on a carrier deck in the middle of the night, in the middle of the ocean on a new moon. It's pitch black. You can't see your hand in front of your face. The pilot has all of his technical instruments at the ready. He always knows his exact altitude, speed, and distance from the ship. But he doesn't have the one crucial thing he needs to land safely. He doesn't have any depth perception. And that's how I feel when I "talk" to people online – I have no depth perception.

When we try to communicate virtually and have not yet acquired the "depth perception" we need to see someone clearly, we're basically flying blind; we can't know what others are trying to convey and it's almost impossible to interpret intended meaning.

Even when we're physically close, Communication Distance can grow. One of our favorite stories about "same place" Communication Distance came from a client who was working as a project manager for an IT department in a Fortune 100 insurance company. She sat in an open space where the cubicles were no more than 12 inches apart. Her manager sat right next to her and would only

email her when he wanted to communicate. He did this constantly, creating a psychological gulf between them that felt to her like “a huge valley between mountain ranges.” And when they would actually look at each other, she felt uncomfortable and he would look down, turn away, and send another email.

In summary, Communication Distance arises when there’s a lack of shared context and we over-rely on one communication mode instead of mixing up modes to get a better view of colleagues

Multi-Load

When we first built the Virtual Distance model, we constructed Operational Distance using multitasking as one of its components. However, a few years into working with our clients, it became obvious that multitasking alone was less of an issue than project or work overload. Therefore, we combined the two and have renamed this aspect of Operational Distance to Multi-Load.

Project Load is defined as having multiple deliverables due at the same time and team members are assigned to multiple projects. This component is almost always high but surprisingly, when Virtual Distance is relatively low on all other measures, working on multiple projects with multiple deliverables due can actually enhance performance. The main reason: lessons learned from one project are often transferred to another, which ends up increasing performance.

When this happens, even though multitasking usually remains high, the stress of multitasking on the individual is lessened by having low Virtual Distance on almost everything else. That’s because when Virtual Distance is low on everything else, team members feel safer and better supported knowing that others will step up if they fall behind.

And it's the stress of multitasking that's most often mistaken for performance problems.

This doesn't mean that a lot of multitasking works in our favor. In fact there isn't a person we know who isn't overwhelmed with things to do these days. Because we can do more, we're doing more. But there are limits. In his 1990 book, *Flow: The Psychology of Optimal Experience*, Mihaly Csikszentmihalyi described these boundaries:

The limitation of consciousness is demonstrated by the fact that to understand what another person is saying we must process 40 bits of information each second. If we assume the upper limit of our capacity to be 126 bits per second, it follows that to understand what three people are saying simultaneously is theoretically possible, but only by managing to keep out of consciousness every other thought or sensation. We couldn't, for instance, be aware of the speakers' expressions, nor could we wonder about why they are saying what they are saying, or notice what they are wearing.

Of course Csikszentmihalyi himself wrote that these were just approximations. But what he described as the limits of consciousness in 1990 is being further studied by neuroscientists today.

Dr. Martin Westwell³ discovered that interruptions from too many electronic communications disturb us most when we're engaged in difficult or "cognitively demanding" tasks like problem-solving.⁴ And yet it is problem-solving, which requires intense thought, that's at the center of building competitive advantage. So when people get to the point that they're tasked to the max, especially at inopportune times, companies may be thwarting their own innovations and future success.

According to Westwell, multitasking and information overload impede the brain's executive function, the part that decides what's meaningful and what's not, what to pay attention to and what to ignore. When overloaded, we can

develop autistic-like behaviors because our own internal executive function is unable to discern background noise from things that are truly important. When this happens, our decision-making and innovative skills suffer.

In summary, working on multiple projects can actually increase performance if Virtual Distance is low on other important factors, especially Affinity Distance. However, if Virtual Distance is high, people burn out from overload faster, and multitasking adds to an already palpable sense of distance. The bottom line on Multi-Load is that working on multiple projects can enhance innovation and success only if Virtual Distance is kept low everywhere else. If that's not the case then the stress of multitasking that goes along with heavy project loads can't be quieted and that's why performance goes down when Multi-Load is high.

Readiness Distance

Readiness Distance is a contributing factor to Virtual Distance when the technology isn't ready when we need it or team members aren't ready with the skills they need to use it.

Most likely, you've already experienced Readiness Distance on multiple occasions. It would've happened while you waited for a technical glitch to be fixed during a video-conference, webinar, conference call, presentation, demonstration of software, or some other technology-dependent event.

Readiness Distance produces “mind drift” as team members’ thoughts float away and they move on to doing something else while someone tries to fix the technical problem. If problems persist and last more than thirty seconds or so, psychologically people move away and, as a result, projects can be temporarily derailed. In some cases it can lead to lasting and more permanent problems.

In summary, Readiness Distance increases when technology doesn't work or isn't available when needed and there's little to no support or cooperation. The solutions to Readiness Distance include making sure team members have multiple backup plans to immediately implement if the technology fails, lest they risk creating costly Virtual Distance.

Summary – Operational Distance

Operational Distance causes people to form mental pictures of others that are not likely to match reality. That's because we don't have the requisite context to frame people with outside information so we use what we know: our own experiences. This leads to a lack of "depth perception" around others and circumstances constantly creating miscommunications and difficulty breaking free of bad feelings that arise as a result. We also drift away, as technology doesn't always work when we need it or we're not skilled enough to use it. And lastly, we can mentally shut others out as we try to make our way through harried and sometimes difficult days unless we're controlling Virtual Distance on all other fronts. Most of the time, Operational Distance intensifies without conscious awareness. However, we know that it does a lot of harm. But out of all the pieces in the Virtual Distance Model, Operational Distance is the most easily controlled by an alert and skilled management.

AFFINITY DISTANCE

Affinity Distance (see Figure 3.4) is what blocks the formation of deep relationships over time. This is the component of Virtual Distance that has the most significant impact on organizational outcomes. When it's high effective collaboration is compromised. However, when Affinity Distance is



FIGURE 3.4 Affinity Distance.

managed over time and stays relatively low, it can make up for higher levels of Operational and Physical Distance.

In business relationships, it's affinity that holds teams together despite location, nationality, or organizational affiliation differences. The absence of affinity, or weak affinity, has the strongest influence on Virtual Distance. When people are unwilling to associate themselves with others or take risks for the sake of the team, work suffers and this is reflected in poor performance. Managers often report they have trouble motivating employees they don't see or who aren't directly in their sphere of influence or control.

And most of the time it's less of a matrix problem and more of an overall Affinity Distance issue. Therefore, reducing Affinity Distance is the most important undertaking for team members and management over the long-term. When successful, the impacts of the other two Virtual Distance issues, Physical and Operational Distance, are also reduced.

There are four relationship dynamics that come together to create an affinity vacuum:

1. Cultural Distance
2. Relationship Distance
3. Social Distance
4. Interdependence Distance

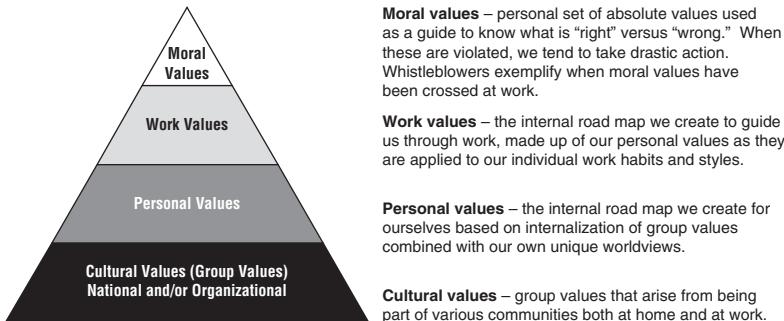


FIGURE 3.5 Values stack.

Cultural Distance

Cultural Distance represents differences in a lack of shared values. These are the internal rules or guidelines that direct our lives and decision-making and appear in many forms. As we talked about earlier, most of the time virtual workers don't even know if they share values with colleagues because of the invisible nature of virtual work dynamics. And values come in many forms, as described in Figure 3.5.

Affinity is hard to establish when our values are out of sync or go “unseen”.

CASE IN POINT

We were involved in a project for the Port Authority of New York and New Jersey. The objective was to uncover ways to improve communications between federal, state, and city agencies having to do with security-related matters. Interestingly, we found that Cultural Distance between agencies stemming from different entrenched organizational values (e.g. secrecy value systems at some agencies versus openness value systems among first responders) was built into bureaucratic structures. In fact, this was the most serious obstacle to developing open and effective relations.⁵



Varied work values among team members also cause problems. Once again though, we may not even know if we share values with virtual colleagues because they, too, become invisible.

One of the most troubling ways shared values are hidden is an overemphasis on culture training. In many culture training programs, the centerpieces are rubrics developed long ago that compare East and West. For example, in the Hofstede model people from the West are seen as individualistic and people from the East are noted as being more communal. These opposite value systems reflect a sense-making framework developed by Gert Hofstede in the 1970s to help people moving to a foreign country avoid socially based mistakes by understanding cultural norms.

However, relying on national norms is not a good way to understand how an individual sees the world – especially since the world has changed a great deal since these original culture models were put into place. In addition, this view creates unintended stereotypes and they become the de facto assumptions we use to frame other people from different countries who we are likely to never meet or rarely see. But people make decisions based on how they personally feel about issues and that does not necessarily “match” a nationalistic generalization. In fact, it rarely does. The key to reducing Cultural Distance is to deliberately try to understand what people personally care about in terms of their work and life, and find similarities shared by colleagues instead of training them to look for differences that, in the world of virtual work, become roadblocks instead of door-openers as originally intended.

Another aspect of Cultural Distance comes through differences in communication styles. For instance, at a large pharmaceutical client the culture was such that some colleagues wrote long emails to describe issues. Whereas the communication style reflected in other parts of the

organization were characterized as shorter with more emphasis on using the phone to discuss details. However, the group that used email as a descriptive tool found the shorter method rude and intrusive because they thought of themselves as being more friendly and conversational.

Neither approach was right or wrong. They were just different. Again, the shroud of virtual communication blocks what we need to know about others. Deliberately revealing preferred communication styles among coworkers can overcome what otherwise can sometimes be seen as personality flaws, thereby making it difficult to objectify and solve.

In summary, Cultural Distance as we define it is a values issue and not one of national cultural identity. People are motivated to behave in one way or another because of the way they value the world and work as individuals. Cultural Distance escalates Affinity Distance the most. Solving Cultural Distance involves revealing shared value systems across team members; focusing on similarities instead of abstract differences not even likely to exist.

Relationship Distance

Relationship Distance is the extent to which team members lack relationship connections from past work initiatives, or know some of the same people but haven't worked together before. These relationships, known as strong ties and weak ties, respectively, are needed for healthy communications and relationship building. When there are no historical ties between two or more people or only a scattered few, or people don't know that they have any common experience with the same person or group, then one feels more Relationship Distance.

When 9/11 occurred in New York, the central communication switches servicing the World Trade Center

area had either been destroyed or severely interrupted. Miles away, an emergency response team was gathered in New Jersey. Led by one of the financial officers of the telecommunications provider, a group of senior managers, who'd worked together previously, was quickly assembled on the front lawn of the company's main campus. Tables were set up, with different teams manning different operational centers. Leaders selected individuals for those teams based mostly on whether they'd worked together in the past. In other cases, people who were chosen for critical assignments were referred by trusted colleagues. The company succeeded in getting service back up and running relatively quickly given the gravity of the situation. Low Relationship Distance was one of the main reasons why people could come together quickly, communicate effectively, and solve problems rapidly.

In summary, Relationship Distance manifests as a sense of unfamiliarity. When people don't have any idea who others are, or lack any indirect connections, it's difficult to establish trust without having to build a relationship from scratch. The solutions to Relationship Distance are tied to creating an alert management that can seed teams or groups with people who already know each other or know some of the same people. As we'll see in Chapter 6, this is one of the easiest of the Affinity factors to fix because there are many ways to reveal common social ties that lay hidden just under the surface.

Social Distance

Social Distance develops when people hold a range of different social positions. Status within and across groups is relevant to any form of collaboration. For example, people have different levels of status in local communities, and these striations are influenced by factors such as political

position and wealth, among others. The truth is that some get more consideration than others, fostering a sense of unfairness that increases Social Distance.

Similarly, status differences exist within organizations; those with higher formal status, or “rank,” tend to be more politically powerful and influential. The farther apart on a formal hierarchy, the farther apart people may perceive themselves to be on any given collaborative effort. This generates Social Distance within and increases Virtual Distance.

Deemphasizing formal status and accentuating contributions by team members, thus building up their social capital within the team, is vital in virtual work. In today’s workforce, companies usually try to get people to think of each other as peers and behave in a cooperative manner; a flat organizational structure is preferred. But most companies still use titles and hierarchies to create a management order and that leads to natural ties around who is most important. When formal status is emphasized, as opposed to the contributions each team member makes, productivity issues can arise.

CASE IN POINT

At a major bank client based in New York many of their information technology (IT) divisions use resources from different countries where formal status is very important. One way in which respect is shown to upper ranks is by agreeing with everything no matter what the person in the lower rank really thinks.

This practice found its way into the bank. Those with lower ranks rarely spoke up about work challenges. Since they hardly ever brought problems to management’s attention, projects fell behind schedule and came in over budget. In this case, Social

Distance caused a multimillion-dollar project to be scrapped and wiped out all of the savings the organization hoped to realize.



In summary, it's easy to see how relying on rank to build social status can create Virtual Distance. It's difficult to manage because to reduce its impact leaders perceive they have to give up some control. However, when team members feel they're on a level playing field with colleagues, based on competence and contributions regardless of formal positional status, they're more likely to work together in ways that favor the bottom line. A strong motivator for us all is to feel appreciated regardless of where we sit in a hierarchy – especially when we have little context in which to validate our efforts through virtual work. So to decrease Social Distance, leaders are well served by showcasing the efforts of all and creating team cultures in which all members feel heard.

Interdependence Distance

Interdependence Distance describes a feeling of lacking a common future and fate for all team members. When teams internalize shared responsibility for success or failure, this component of Virtual Distance is greatly reduced. But as we've said before, most of the teams we work with don't even know what interdependencies there are, let alone how to nurture them.

Interdependence Distance is one of the major problems in partner relationships. For example, a large credit card company had a major security breach when an outsourcing provider sent portions of the work to a second outsourcer. While the card company had negotiated a contract that

included a governance structure to keep interdependence high between the two parties, there was little in the contract that tied the card company to other outsourcing companies “downstream.” The breach in security was a result of one of these relationships gone awry. There was no interdependence between the customer and the second outsourcer. The chief technology architect of the credit card company told a group of financial services executives that the problem was becoming so prevalent that they gave it a name, “Interdependence Risk,” which is now formally used as an indicator of potential financial and reputation exposure in many major financial institutions.

In summary, Interdependence Distance is second only to Cultural Distance when it comes to impact on performance and innovation. In most cases people just don’t feel that they’re in the same boat, or even that there is a boat. Leadership should focus on making interdependencies explicit and team members can be trained to seek out ways in which people’s fates are tied together, not just through task linkages but through common bonds where all succeed together or are accountable as a team when things don’t go as planned.

Summary – Affinity Distance

Affinity Distance arises from a lack of visible commonalities between our value systems and styles, social behaviors, relationship histories, and worldviews or shared mental models. The four Affinity Distance areas represent those dynamics that deeply drive close relationships between human beings. They provide the context in which we develop and retain meaningful and long-lasting bonds; therefore, among the virtual workforce, it’s of primary importance to reduce Affinity Distance.

THE VIRTUAL DISTANCE MODEL: PUTTING IT ALL TOGETHER

We've now met Virtual Distance. It's a model made up of a trio of distance-causing features in the virtual workplace, each of which is usually active in different combinations and with different emphasis at any given time.

Let's go back to our CIO who had spent three years using over fifty success criteria to understand his global portfolio of projects. In most of them, multiple locations, miscommunications and a cadre of people who didn't know each other, among other things, were all part of the problems. By sorting these many varied quandaries into their respective corners of the Virtual Distance Model, he had a much clearer view of why projects stood where they did, and solved these dilemmas by reducing Virtual Distance.

But the challenge of fixing problems doesn't stop there. It is incumbent upon leadership to measure the extent to which Virtual Distance is impacting important outcomes. That's where the Virtual Distance Index and its impact on performance takes on a critical role. In the next chapter we'll share new benchmark data that reflects 15 years of Virtual Distance metrics and its impact across the industries, departments, and management profiles described in the Introduction.

NOTES

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2. Mitzi M. Montoya-Weiss, Anne P. Massey, and Michael Song, Getting it together: Temporal coordination and conflict management in global virtual teams, *Academy of Management Journal* 44 (2001): 1251–62.

3. Former Director for the Future of the Mind at Oxford University and now the Director of Flinders Centre for Science Education in the 21st Century at Flinders University in Adelaide, Australia.
4. M. Westwell, Disruptive communication and attentive productivity, Institute for the Future of the Mind (University of Oxford, 2007).
5. Stevens Institute of Technology, Securing the Port of New York and New Jersey: Network-Centric Operations Applied to the Campaign Against Terrorism, September 2004, www.stevens.edu.

4

Measuring Virtual Distance

In our original research we found startling evidence of the connection between Virtual Distance and several important organizational outcomes. In our studies published in 2006 we reported on data from over three hundred different projects where Virtual Distance was measured for all team members. A wide variety of different kinds of projects and industries were included.

As we've pointed out in several places, we've updated our research to include results covering:

- Over 1,400 studies
- Over 36 industries
- 55 countries
- People from the most senior ranks through individual contributors

Analyses of our new benchmark database demonstrate the robustness of the relationships between Virtual Distance and organizational performance. There are statistically significant differences year-over-year and the impact Virtual Distance is having on outcomes is getting more intense.

We've also found that the three Virtual Distance factors are exponentially related to critical success factors. These relationships are reflected in:

The Virtual Distance Ratio

$$\begin{matrix} & 2 \\ 1 & : & 4 \end{matrix}$$

- Physical Distance is only $\frac{1}{2}$ as crucial as;
- Operational Distance, which is only $\frac{1}{2}$ as crucial as;
- Affinity Distance

Overall Virtual Distance initiates serious changes in the health and well-being of companies and their people. In addition, we've found that uncontrolled Virtual Distance is getting more potent all over the world and having more serious effects.

METHODOLOGY

Our original objective was to empirically verify the relationship between Virtual Distance and organizational performance. We used the statistical technique of linear modeling to link the Virtual Distance pieces to critical success factors.

We initially designed our formula to incorporate all three distance facets of the Virtual Distance Model: Physical, Operational, and Affinity. The model provided an overall Virtual Distance Index (VDI), where higher scores mean greater Virtual Distance. The formula now takes the form shown in Figure 4.1.

However, the relative impact of each component of Virtual Distance is better seen when shown as a function of the Virtual Distance Ratio as depicted in Figure 4.2.

FIGURE 4.1 Organizational outcomes as a function of Virtual Distance.

Critical Success Factors as a function of the Virtual Distance Ratio

$$\begin{aligned} \text{Function (Critical Success Factors)} = & 1 \times \text{Physical Distance} + 2 \\ & \times \text{Operational Distance} + 4 \times \text{Affinity Distance} \end{aligned}$$

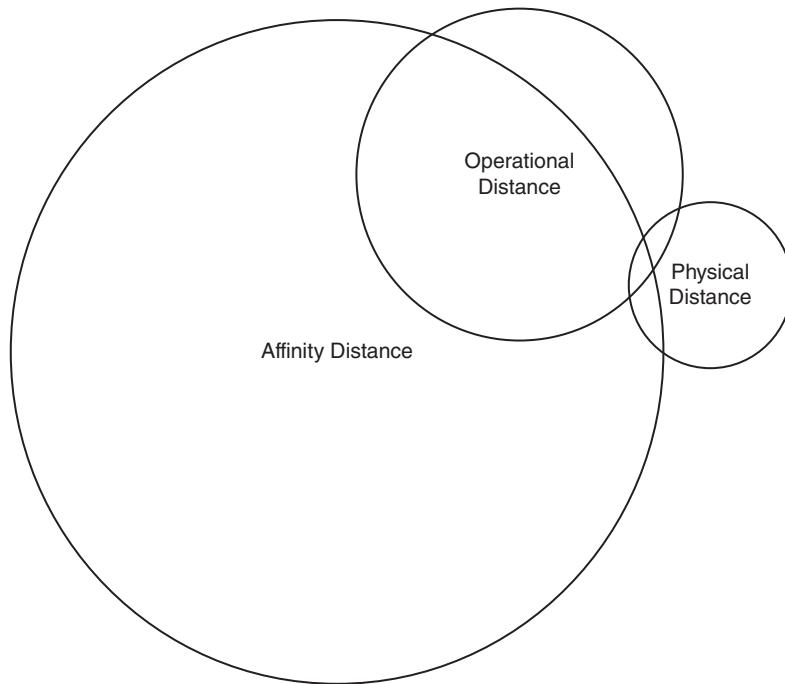


FIGURE 4.2 Relative size of impact on outcomes based on the Virtual Distance Ratio.

To see the measures of impact more clearly, we've charted the three Virtual Distance factors against key performance indicators in order ranked by Affinity Distance. As you can see from Figure 4.3, Affinity has the largest impact on all outcomes and Operational Distance the second largest impact. The bars for Affinity and Operational Distance are all statistically significant whereas the bars for



FIGURE 4.3 Impact of Virtual Distance Factors on key performance indicators.

Physical Distance are not. This means that the impact of Physical Distance on Key Performance Indicators is the same as it would be by chance – not by some predictable statistical relationship. To bring the point home, as we talk about in many places in the book, making decisions to bring people back into the same location because it seems like this will predictably improve outcomes is based on an assumption that is not supported by the data.

Figure 4.3 also shows that Virtual Distance can predict whether projects succeed or fail.

Figure 4.4 lists the definitions of each one of the key performance indicators referred to in Figure 4.3.

FIGURE 4.4 Key performance indicator definitions.

(ranked in order of Affinity Distance impact)

1. **Trust:** The degree that people trust one another.
2. **Organizational Citizenship Behavior (OCB):** The degree to which people engage in voluntary behaviors like helping colleagues; behaviors that are outside of their prescribed roles and sharing information for the good of the team.
3. **Job Satisfaction:** The degree to which people are satisfied with their jobs.
4. **Success:** The degree to which projects come in on-time, on-budget, and have high customer satisfaction. Customers can be internal as well as external. This outcome, along with Innovation, has the most direct link to financial success.
5. **Organizational Learning:** This was not a variable that we originally measured. However, as more executives began to ban remote work because they believed that Organizational Learning was being negatively impacted, we decided it was important to understand how Virtual Distance was affecting this aspect of work as well. As we found out, Learning followed the same pattern as the other outcomes and the impact of Virtual Distance on Learning could also be predicted. Virtual work was not relevant after accounting for Virtual Distance.
6. **Leader Effectiveness:** The extent to which team members see their leaders as effective. We found that the lower the Virtual Distance the more team members found their leadership to be effective, and not the other way around. However, the issue of leadership in the world of virtual work is getting more complex. We dedicate the last chapter in the book to the burgeoning importance of Soul-Based Leadership.
7. **Innovation:** The extent to which people work together in innovative ways.
8. **Employee Engagement:** Originally, we did not measure the role of Virtual Distance on this outcome. However, one of our largest clients wanted to know how Virtual Distance was impacting this important metric, so we added it in 2011. We found that Virtual Distance was having a significant impact on engagement and have been tracking it ever since.

FIGURE 4.4 (Continued)

9. **Clarity:** The extent to which people have a clear understanding about their roles, goals, and vision on any given project or work initiative.
10. **Strategic Impact:** The extent to which team members feel they have an influence on the strategy of the company. This is a highly predictive measure of motivation that's found in academic literature but is not often reported in practitioner journals.

VIRTUAL DISTANCE AND TRUST

It's clear that trust is hit the hardest by uncontrolled Virtual Distance. In fact we've also shown that high Virtual Distance is the statistical equivalent of distrust. However, this can change. When Virtual Distance is reduced we get the statistical equivalent of strong trust.

When we work together we experience interactions in two ways: analytically and emotionally. So it's not surprising that studies have identified two types of trust: cognitive trust and affective trust, as shown in Figure 4.5.

As Virtual Distance increases, trust becomes more cognitively based. There are few if any personal ties and relationships are tenuous, so trust is primarily based on the rational belief that others will behave in a trustworthy manner, as they would if there was a contract in place. It also should be no surprise that cognitively based trust tends to be more fragile. In other words, it's easier to go from a trusting to a distrusting relationship when the basis is purely rational.

Cognitive Trust:

- Contractual
- Short-lived
- Enough for discrete work

**Affective Trust:**

- Deep and meaningful
- Long-lasting
- Critical for collaboration

FIGURE 4.5 Cognitive vs. affective trust.

As Virtual Distance is lowered, meaningful bonds develop and trust becomes more affective in nature; it runs much deeper and creates a strong foundation for collaborative work.

This dynamic clearly comes through in the data, as shown in Figure 4.6. When Virtual Distance is low, 90% of people report high levels of trust. But when Virtual Distance is high, only 26% say they trust others.

Depending on their personality, people vary in the extent to which they are trusting of coworkers, managers, and organizations.¹ This personality factor is called “propensity to trust” and has been shown to be a good predictor of trust in organizational settings.² All other things being equal, if you’re going to hire people to work together no matter their location, it’s better to have people who are high in propensity to trust. The Virtual Distance formula predicts that team members will likely trust one another when Virtual Distance is low.

In another study,³ we looked at the extent to which pairs of coworkers trusted one another. Propensity to trust was much more important when the two coworkers were working virtually as opposed to when they were collocated.

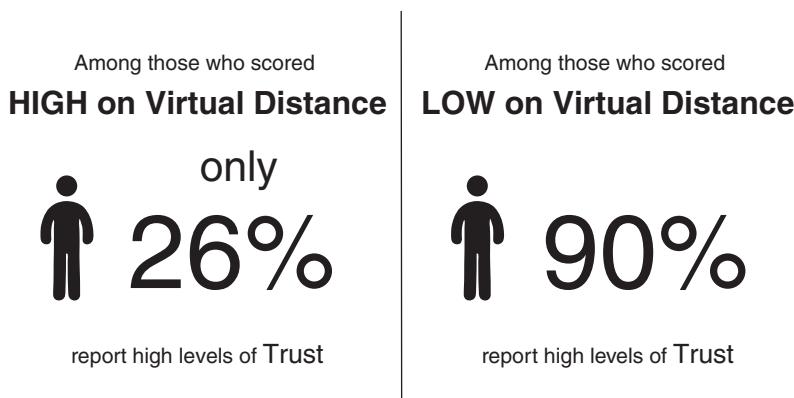


FIGURE 4.6 Virtual Distance and trust.

However, there are three other important factors that lead to the development of trusting relationships: benevolence, ability, and integrity. This translates to:

- The more I think that my coworkers have my best interests at heart (benevolence), the more likely I am to trust them.
- The more I think that my coworkers have the knowledge and ability to get the job done (ability), the more likely I am to trust them.
- The more I think that my coworkers will do what they promise (integrity), the more likely I am to trust them.

All three of these influencers are based on information that we have about our coworkers. This information can come from prior relationships or what other people tell us, or, more likely, it comes from our own experience.

Virtual Distance influences not only how much people trust one another, but, as seen in Figure 4.7, also how much

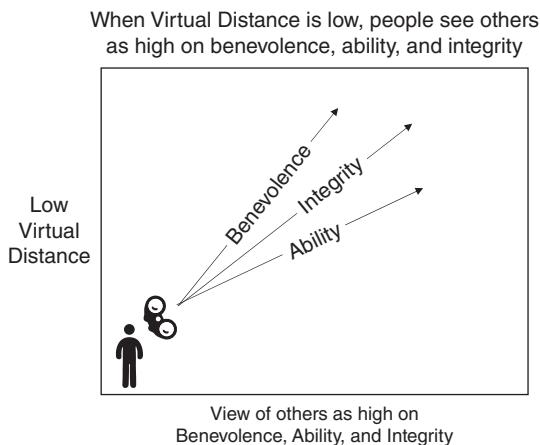


FIGURE 4.7 Low Virtual Distance and trust as seen as benevolence, ability, and integrity.

they see their coworkers as being benevolent, as having integrity, and as having the requisite ability; all statistically powerful but more importantly as a practical matter, critical to teams in every corner of the world.

TRUST AND THE SECRET OF LIFE

In the early 1950s, two British scientists were working on a problem fundamental to our understanding of human life. According to most accounts, James Watson and Francis Crick, who won the Nobel Prize for medicine for their discovery of the structure of DNA, owed their success to work done by Maurice Wilkins and Rosalind Franklin, physical chemists who worked in a nearby laboratory. Franklin was known to both Crick and Watson, but not very well. The bridge was Maurice Wilkins, who had strong ties with Crick and Watson and knew Franklin quite well. Wilkins trusted Watson and Crick enough to share a photograph that Franklin took using X-ray crystallography, which showed that DNA was a double helix and confirmed for the first time the hypothesis that Crick and Watson had proposed. This led to Crick's announcement that they had found "the secret of life."



Trust is the glue that holds teams and organizations together. Without it teams become less productive, people are less willing to share information and help one another, energy that could be spent on innovation is spent on avoiding perceived threats from others.

We will discuss some of the influences of trust in more detail in the rest of this chapter, but it's been clear from our research that the same factors that produce Virtual Distance also lower trust. When Virtual Distance is high, trust is in short supply and often turns to distrust, so it is no wonder that many organizations are trying to find solutions to managing virtual teams.

VIRTUAL DISTANCE AND ORGANIZATIONAL CITIZENSHIP

A woman at State Farm Mutual Insurance Co. was converting a paper database into an electronic one. “Why are you working so energetically?” someone asked her. “Don’t you know that you are working yourself out of a job?” “Sure,” she answered, “but I’ve been here long enough to know that I can trust them. They’ll find something else for me. If I didn’t believe that, I might be tempted to sabotage the process.”⁴

Organizational Citizenship Behavior (OCB) includes all those behaviors that are not strictly required by a job description. Some have an altruistic nature like helping others with their work, sharing information, giving time to help coworkers and encouraging coworkers when they’re down. Others reflect “civic virtue” that include keeping up with developments in the organization and attending functions and meetings that are not required. OCB can have a negative side as well, as in employees who are constantly complaining about trivial matters, making problems bigger than they really are, and always focusing on the negative side of things. The negative behaviors can escalate to destructive behaviors, such as sabotage or even outright theft. One study showed that thefts increased when organizations communicated a pay reduction in a way that engendered distrust.⁵

As our State Farm employee illustrates, the level of trust can set the context for either positive or negative OCB. Figure 4.8 shows how trust is related to OCB.

High levels of trust allow people to focus on the work that needs to be done without worrying about someone else undermining their work or falsely taking credit for it. When we trust our coworkers, we don’t think twice about sharing information or going out of our way to help

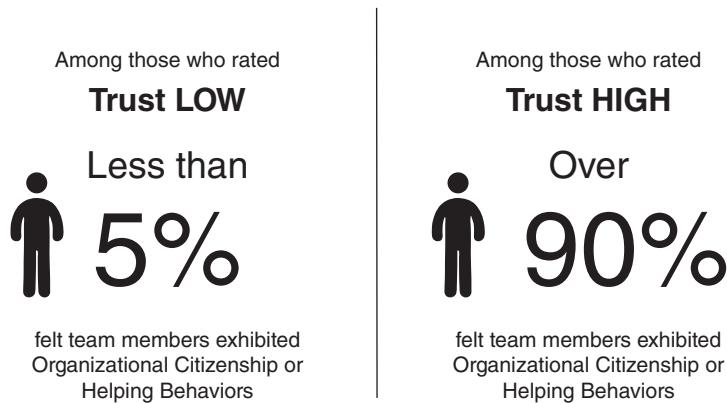


FIGURE 4.8 Trust and organizational citizenship behavior.

someone else. These kinds of behaviors only increase in importance as we move toward remote and virtual work.

Virtual Distance can influence OCB in two ways. Because it influences trust and trust influences OCB, it has an indirect effect. But it also has a direct effect. Figure 4.9 shows the difference between participants in our research who had high or low Virtual Distance and the level of OCB behavior that they reported.

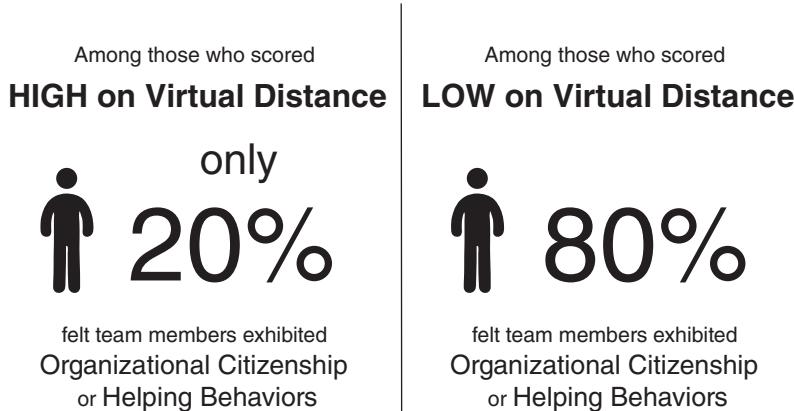


FIGURE 4.9 Virtual Distance and organizational citizenship.

High levels of OCB not only make working more pleasant and rewarding, they also lead to better performance. In a study of factory production teams, OCB led to both better quality and higher productivity.⁶ Another study showed similar results for the performance of projects.⁷ Later, we'll present results that show a strong relationship between OCB and project success.

VIRTUAL DISTANCE AND SATISFACTION

Usually, when people are asked why they work, one answer seems obvious – for the money. While it is true that pay (and benefits) are important, the research tells us that we can be satisfied or dissatisfied for several other reasons: quality of our leadership, how much we enjoy the actual work, and interactions with our coworkers. Having a great manager can make us look forward to coming to work each day, and having a miserable manager can make work intolerable. Likewise, having work that fully engages us can make the day go faster and give us a sense of accomplishment. And having great coworkers can be a source of genuine enjoyment, meet our need for social interaction, and result in higher outputs.

We were interested in how working virtually affected satisfaction, particularly when we looked at the comments from the people we interviewed, such as the following: “The same location can promote interaction and teamwork, but not always.”

We also got this comment: “Distance is not a problem. I am on the best team; have the kindest, most considerate coworkers imaginable; and a great leader who is always positive and supportive. We are all very lucky.”

So we were curious to see whether it was collocation or Virtual Distance that made the difference in job satisfaction.

We asked our participants to rate their agreement on the following four questions:

1. I would enjoy working with the same team members again.
2. I enjoyed working with the project manager on this project.
3. The work on this project was enjoyable.
4. I was satisfied with the reward or compensation that I received for working on this project.

We quickly found that collocation, by itself, had nothing to do with any of the aspects of satisfaction we asked about. We then examined the relationship between Virtual Distance and each of the four aspects of satisfaction. We did not find any relationship with pay, but then we were not expecting one, since pay should not be affected by Virtual Distance. For the other three items, however, the relationships were all significant. Figure 4.10 shows how Virtual Distance is related to each of the satisfaction indices.

Clearly, as Virtual Distance becomes lower, people are more satisfied with their coworkers, their manager, and the nature of the work that they're doing – no matter where they're located!



FIGURE 4.10 Virtual Distance and satisfaction.

From an organizational perspective, we know that satisfied employees are more likely to stay with the company, thus reducing recruiting and selection costs. Satisfied employees also create what are called “spillover effects,” such as helping to recruit job candidates, recommending company products and services, and generally creating goodwill toward the company. Finally, satisfaction does have a slight but significant relationship with productivity. In general, more satisfied employees tend to be more productive. By increasing satisfaction, lowering Virtual Distance can also improve the bottom line.

VIRTUAL DISTANCE AND PROJECT SUCCESS

Projects are notorious for being behind schedule and over budget. So success by those measures can be elusive. Given the results that we have discussed so far it would be surprising if we failed to find an influence of Virtual Distance on project success. In Figure 4.11, it's clear that Virtual Distance is having a direct impact on on-time, on-budget performance, which directly go to the bottom line. This

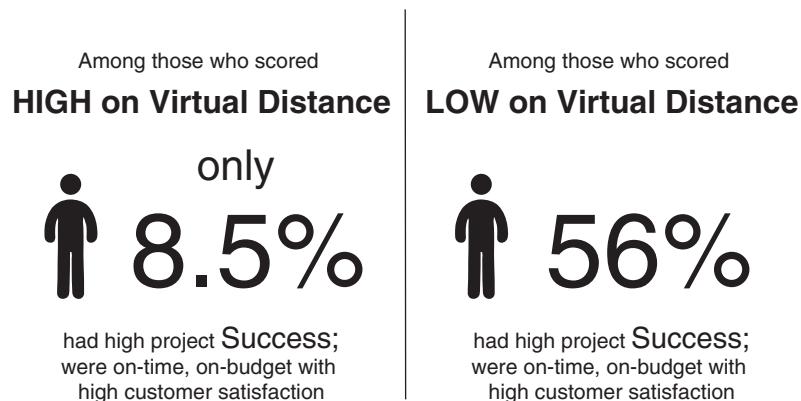


FIGURE 4.11 Virtual Distance and success.

particular statistic shows one of the most direct financial opportunities available when Virtual Distance is reduced.

VIRTUAL DISTANCE AND LEARNING

Learning is a critical factor in the success of teams and, indeed, the entire organization. We asked our participants about the extent to which they learned from others in their teams, whether their experiences resulted in improved knowledge and skill and the extent to which the lessons learned could be applied to other projects or initiatives. As seen in figure 4.12, Virtual Distance makes a big difference.

As we've discussed elsewhere, the explanation for these results can be found in the direct impact that Virtual Distance has on two key measures: trust and organizational citizenship. We then used a technique call Path Analysis to see how Virtual Distance worked, which clearly explained the improvement in learning by the influence of Virtual Distance on trust and organizational citizenship and, in turn, the influence of these two factors on learning.

Team learning occurs as members acquire, share, and combine knowledge through experience with one

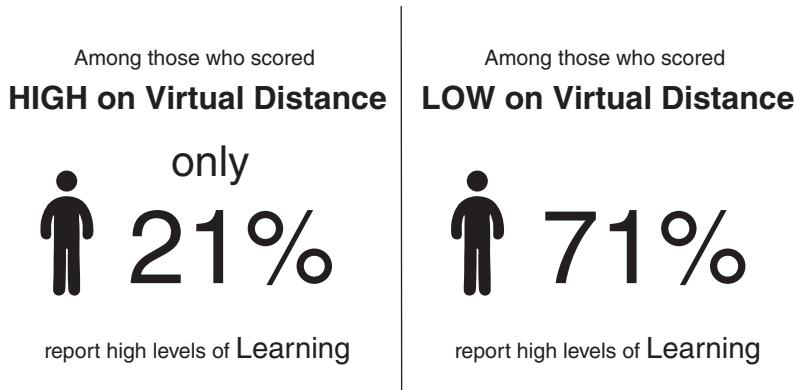


FIGURE 4.12 Virtual Distance and learning.

another. Learning is facilitated when there are high levels of trust among team members and between the team and management. When trust is high, employees are much more likely to engage in open discussions that can lead to the transfer of information and skills. Second, organizational citizenship measures the helping behaviors and support that enable team members to learn from one another. In sum, improved learning happens because lower Virtual Distance increases both trust and organizational citizenship. The importance of these two factors cannot be overemphasized. If we can improve trust and organizational citizenship, a lot of positive outcomes will follow.

VIRTUAL DISTANCE AND INNOVATION

Another most important aspect of work today is, of course, innovation. As we reported in our first edition, in 2003, PricewaterhouseCoopers (PwC) conducted a survey on innovation across many different companies. Here's a direct quote from the PwC report: "At the heart of the issues impacting how people work together is trust. Of the quantitative data in the survey, trust between people which enabled them to share ideas freely was the *single most significant factor* in differentiating successful innovators."⁸

How is trust related to innovation? There are three main connections: cross-fertilization, constructive criticism, and acceptance of failure. First, most good ideas come from the cross-fertilization we get when we interact with customers, colleagues, coworkers, or people in other disciplines. This cross-fertilization occurs only when people are comfortable sharing information. But sharing information makes us vulnerable. We might be ridiculed, or someone might steal our idea or take credit for it. In their discovery of the double helix, Wilkins trusted Crick and Watson and shared some information with them that led to the discovery of

the structure of DNA. Crick and Watson ended up citing Wilkins and Franklin in their published work. What did Wilkins get for trusting Crick and Watson? He shared with them the 1962 Nobel Prize for medicine!

A second connection is that ideas get better when they're debated, built on, and discussed within a constructive framework. The two types of conflict that we see when people work together – task-related (good) and personal (bad) – have been compared for teams that have different levels of trust. Without trust, conversations that involve task-related conflict and argument may not occur or, if they do occur, can quickly turn into personal conflict. The research shows that when trust is high within a team, task-related conflict is much less likely to deteriorate into conflict that is personal in nature.⁹

Finally, innovation involves taking risks and occasionally failing. Employees have to trust that failure is acceptable and even part of a healthy process, or they won't take any risks. Management must trust employees enough to give them the freedom to come up with new ideas. One of the most innovative companies in the world, the 3M Corporation, trusts its employees enough to allow them to use up to 15% of their time to work on their own innovative ideas.¹⁰

Figure 4.6 shows how dramatically Virtual Distance influences the level of trust. Statistically speaking, high Virtual Distance = low trust/distrust.

This makes sense not only because of the empirical data, but also from a logical viewpoint. Physical Distance lowers the degree of social presence that is critical for building relationships and trust. However, we can get to low Virtual Distance through the two other factors. As we discuss later, social presence is the sense that you're connected to and with the other person. Operational Distance – the day-to-day noise in the systems that can stop meaningful communications from getting through – limits the extent to which relationships can be formed and

strengthened over time. Finally, Affinity Distance goes to the heart of trusting relationships. When we have different values and communication styles, no history of relationship either direct or indirect, a formal status that overshadows contributions to the work, and a lack of a felt, shared future, it's difficult to build trust. Figure 4.13 shows how trust and innovation are related.

Higher trust leads to more innovative behavior. But this is only part of the story. Virtual Distance not only drives trust, which drives innovation, but also Virtual Distance has an additional effect on innovation over and above the influence on trust.

We tested the model introduced in Chapter 1, the Virtual Distance Path (shown here again as Figure 4.14).

As we discussed, in that analysis we found that Virtual Distance influences innovation in two ways. First, it influences trust, which in turn influences innovation. This is called an indirect effect.

But Virtual Distance also has an additional direct effect on innovation, as seen in Figure 4.15.

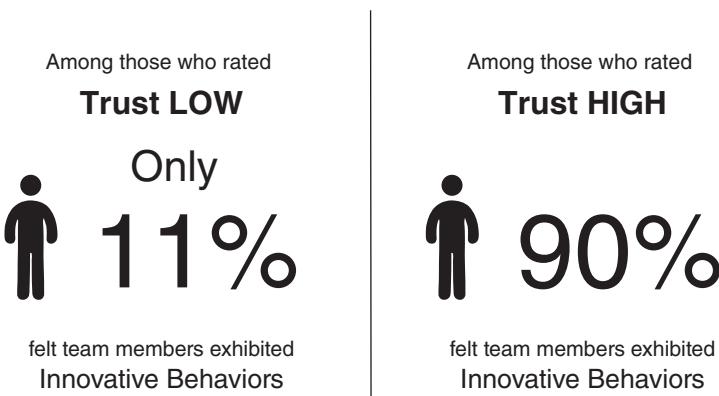
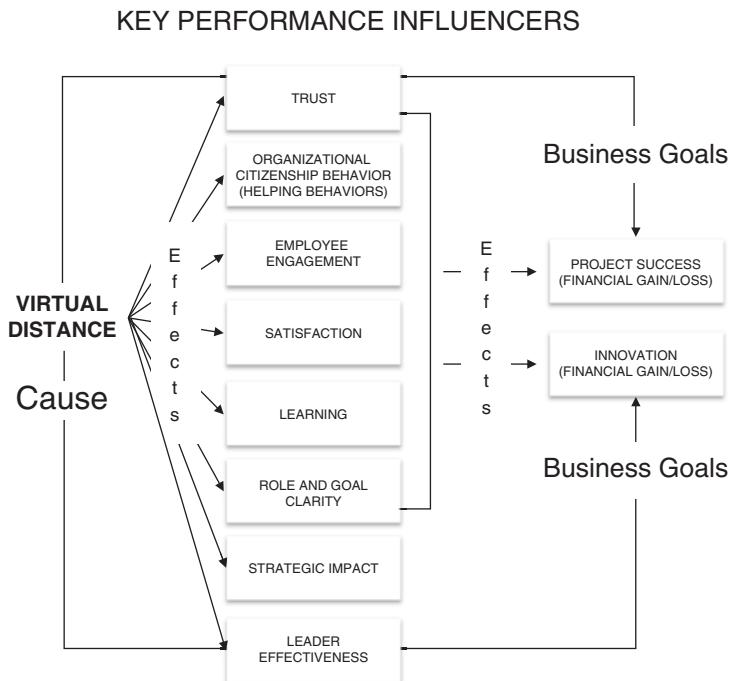
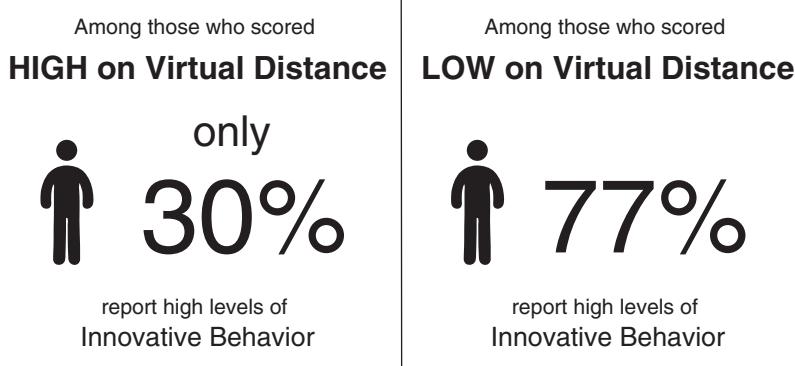


FIGURE 4.13 Trust and innovation.

**FIGURE 4.14** The Virtual Distance Path.**FIGURE 4.15** Virtual Distance and innovation.

If we consider both the direct and indirect influence that Virtual Distance has on innovation, it's clear that lowering Virtual Distance is crucial if organizations are counting on innovation to build and maintain competitive advantage.

In an effort to boost innovation at one client that had a highly distributed new product development organization, they went so far as to relocate all of their employees into a common, specially designed building at a cost of over \$7 million. They thought it would eliminate the problem.

It did not.

VIRTUAL DISTANCE AND EMPLOYEE ENGAGEMENT

As we noted above, we did not originally include employee engagement in our Virtual Distance measures. However, we now have data spanning over seven years from a wide array of companies and industries and the results are dramatic. Employee engagement includes pride in the organization and a sense of shared values, with work, loyalty, and motivation going beyond normal expectations.

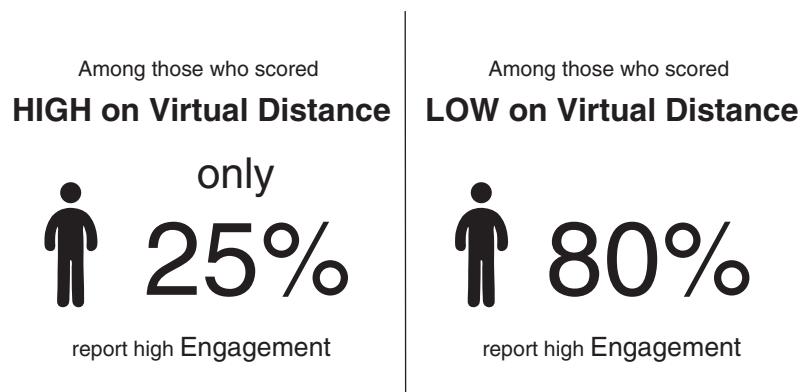


FIGURE 4.16 Virtual Distance and employee engagement.

As you can see in Figure 4.16, our data show that high Virtual Distance produces significantly lower employee engagement.

Given our other results it's not surprising to find employee engagement is influenced by Virtual Distance.

VIRTUAL DISTANCE AND CLARITY OF ROLES, GOALS, AND VISION

In Chapter 3 we discussed how Virtual Distance created a problem in a NASA project.

Some background may be helpful in understanding how some clarity ultimately made this project successful. On February 1, 2003, the orbiter module for the Space Shuttle *Columbia* was destroyed because of damage to its thermal control system. All seven crew members were killed. Within hours of this disaster, the Columbia Accident Investigation Board (CAIB) was formed, and in August 2003 they issued their report. Among the recommendations made by the CAIB was the development of a system for inspecting the tiles in the thermal shield once the orbiter module began orbiting the earth. On September 3, 2003, the Orbiter Boom Sensor System (OBSS) project began at the Johnson Space Center. The OBSS project not only met an extremely aggressive schedule, but produced an innovative solution to a significant problem in the space shuttle program. One of the major reasons for that success was the clarity of vision established at the very outset.

The vision for the product was clear from the first stages of the project: "Develop a capability for inspecting damage to the Orbiter TPS while in orbit." The vision was clear and accepted as a given by all project team members interviewed, although there were still some uncertainties. Two of the most critical concerns were (1) the technical requirements for the laser sensors; and (2) the ability

to repair tile damage if detected. Members of the project team understood and accepted these uncertainties and did not let them interfere with their objectives. All team members expressed a high level of commitment to the project and underscored its importance to resuming shuttle operations. For example, “the OBSS will have a capability of detecting damage to a depth of 0.25 inch.” The vision for the team was clear, and within the specified design parameters, team members were empowered to make decisions, problem-solve, and be innovative. This empowerment contributed to the sense of ownership and the high level of commitment on the part of team members.

The OBSS is an example of how clarity of vision can provide the basis for success. Clarity of vision means that everyone on the project team understands the goals of the project, their roles on the project, and what needs to be done, how it should be done, and who needs to do it. The problem we described in Chapter 3 was solved by reducing Virtual Distance and getting the Canadian subcontractor on the same page as the rest of the team. Team researchers use a closely allied concept called the “shared mental model” to describe a quality that most high-performing teams have. They know how the team interacts, who has specific knowledge and expertise, and how information can be shared and communicated.

The NASA project is not the only one in which clarity was important. In our research on over seven hundred new product development teams, we found clarity of vision to be the single most important differentiator between successful and unsuccessful projects.¹¹ We had not yet looked at one important question. How did Virtual Distance affect clarity?

We first looked at collocation alone to see if it had any influence on the clarity of vision, roles and goals. It didn’t. But Virtual Distance had a dramatic effect on vision, role

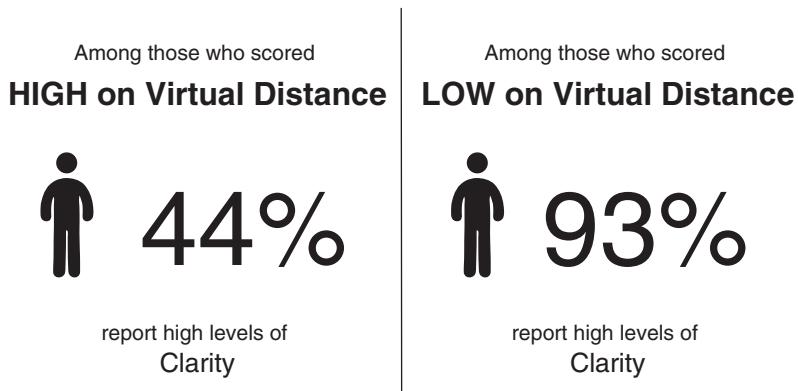


FIGURE 4.17 Virtual Distance and clarity.

and goal clarity. Figure 4.17 shows the difference in vision clarity for the lowest 25% on Virtual Distance and the highest 25% on Virtual Distance.

VIRTUAL DISTANCE AND STRATEGIC IMPACT

Around the same time we decided to incorporate employee engagement in our survey, we decided to add another outcome called Strategic Impact. Briefly, this outcome includes activities that either result in improved business practices and rules or help set the stage for further development of new business practices or services for customers. Think about it: when an employee feels as though they have a direct influence on strategy and growth, they become more motivated to work for the cause.

Strategic Impact is rarely included in typical organizational management metrics; however, it can be a strong contributor to less successful initiatives. However, when Virtual Distance is reduced and managed over time, and Strategic Impact predictably increases significantly, this

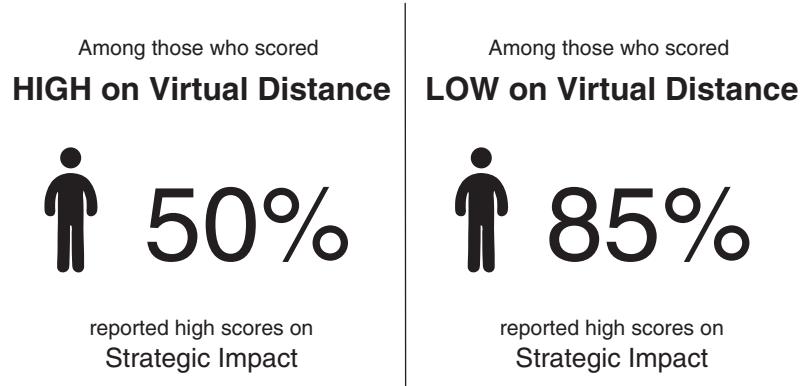


FIGURE 4.18 Virtual Distance and Strategic Impact.

influencer can be like a booster shot and help create much higher results on innovation and project success, as can be seen in Figure 4.18.

PUTTING IT ALL TOGETHER: VIRTUAL DISTANCE AND SUCCESS

We have shown how Virtual Distance influences trust, organizational citizenship behavior, satisfaction, success, learning, leader effectiveness, innovation, employee engagement, clarity, and strategic impact.

Based on our updated worldwide analysis and our experience with dozens of organizations, the implications of Virtual Distance for companies are obvious and will only continue to grow in importance as we become more virtual, remote, and project-based. Lowering Virtual Distance has a positive impact on all of these key performance indicators. However, the measures alone are just the first step in solving for Virtual Distance. Next we use Virtual Distance Mapping as a way to get a closer view of where Virtual Distance lives.

Some key takeaways from our chapter on measuring Virtual Distance:

- The prevailing notion that geographic separation is the most important factor in causing organizational dysfunction is a myth.
- According to the Virtual Distance Ratio, the three Virtual Distance factors have differing impacts on Key Performance Indicators. Physical Distance has the lowest impact, Operational Distance has the second highest impact and Affinity Distance has the most impact.
- Reducing Virtual Distance increases trust, one of the most important factors in organizational effectiveness. In turn, trust influences many other important outcomes.
- Virtual Distance influences overall project success as well as:
 - Organizational Citizenship Behavior
 - Employee Engagement
 - Job Satisfaction
 - Organizational Learning
 - Innovation
 - Clarity
 - Strategic Impact
 - Leadership Effectiveness

NOTES

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11. For example, in new product development we found that Clarity of Vision during the new product development stage was the most important factor in separating the award-winning new products from the moderately successful and unsuccessful products. See Gary Lynn and Richard Reilly, *Blockbusters: The Five Keys to Developing Great New Products* (New York: HarperCollins, 2002).

— 5 —

Mapping Virtual Distance

As we saw in Chapter 4, Virtual Distance causes quantifiable impacts on organizations and individuals alike. Once those are identified, it's time to start addressing Virtual Distance problems "on the ground." The Virtual Distance Index (VDI) Assessment gives leaders the information they need to make sense of the big picture and ensure better performance if they home in on target areas that need improvement.

The next step is to map Virtual Distance to better understand how Virtual Distance is experienced at various group levels and identifies how it shows up in the everyday lives of team members. From there Virtual Distance Action Plans are built to address specific situations and differing people configurations.

VIRTUAL DISTANCE MAPPING PROCESS

Figure 5.1 is a picture of an actual Virtual Distance Map created during a client workshop. Just by glancing at it, you can see it's quite messy.

That's because, as we all know, people dynamics are messy. Informal interactions – which is the way work actually gets done – tend to travel under the surface of the neat



FIGURE 5.1 Virtual Distance Map photo from “live” client engagement.

and clean organizational charts we often rely on to understand structure. While we need those charts to generally know who reports to whom, it's a mistake to think that the most meaningful momentum in the virtual workforce is reflected through them. For that we need to create Virtual Distance Maps.

Some companies use software that generates social network maps based on explicit attributes of people “connections” to find hidden work dynamics. But this process often yields misleading and confounding information.

CASE IN POINT

At one of the world's largest chip makers, an organizational design specialist developed software to render social network maps that revealed certain team member features, such as email activity, number of projects assigned to each team member, geographic location, and other markers. However, the company eventually shelved the system because the software failed to show anything useful about how the underlying nature of the team member relationships was influencing performance.



We have found, for example, that people with lower Virtual Distance tend to send fewer emails to one another. They actually call each other more often. However, most social network mapping software is based on email patterns. The results they produce often conclude that the people who receive the most email are the most influential or powerful people in the network. But we have found that this can lead managers away from what's really going on because it's likely the opposite is true. Often those software analyses are picking up people receiving the most email because they're a person people think they have to "copy" for various protective political positioning, for example.

MYTH BUSTER

People use less email, not more, when they have lower Virtual Distance. This leads to higher productivity. Social networking software based on email patterns designed to illuminate hidden power structures often result in misleading detours about who's working best with whom.



Even as we were writing this chapter we were invited to a conference on HR People Analytics and many of the vendors advertised social network mapping software of one kind or another. Recently a large consulting firm predicted that the HR Analytics market would explode, because:

The ability to access and analyze huge unstructured data on a real-time basis to execute business decisions pertinent to human resource utilization is critical to business development. However, there *exists a distinct gap in the optimum usage of workforce analytics by the large enterprises.*¹

But it's just magical thinking to believe that "huge unstructured data" and "real-time" analytics software can tell us anything about how people feel about their work – no matter how pretty the diagrams or how sophisticated the computing techniques.

Virtual Distance instead taps into how people experience one another by way of rigorous scientific methods followed in developing the Virtual Distance Index.

Therefore, Virtual Distance Mapping, a people-driven process, leads to solutions that time and again predict positive impact because it's built on a predictive foundation grounded in best-practice research.

There are three steps to the Virtual Distance Mapping process

Step 1: Identify Key Players

Step 2: Assign Virtual Distance Scores

Step 3: Locate the Critical Relationship Path(s)

To see how it works, we start with a simple case we worked on early on that was published in the first edition. Once you read through this, we follow it with a more complex case that is more typical now in large organizations.

CASE STUDY

Mapping Virtual Distance: The China Case

A large technology company wanted to build a leadership institute in Beijing. The university-based lead worked with the tech company executive in New York and he agreed to consider the university for the project. After two in-person meetings at the headquarters location, the university was given the chance to develop a project plan with the China-based manager. Once a mutual plan had been designed, the New York executive would make a final decision about funding the larger leadership project.

The first official project meeting between the New Jersey-based university project manager and the Beijing project manager took place via conference call and was led by Joe, the project manager for the university team. The purpose of the call was to introduce everyone and agree to a go-forward plan.

The call didn't go well.

Communication problems, including language barriers, as well as mismatched expectations, prevented any meaningful exchange. Joe had to abruptly end the call in frustration and regroup.

Step One: Identify Key Players

Joe mapped out the people he was working with. This provided him with his first picture of the situation. Joe's initial social network map is depicted in Figure 5.2.

Joe first met with the New York executive at a company office. This executive had the power to approve the project but he would not be the day-to-day project manager. That person lived in Beijing, where the project would be implemented. Joe had never met the project manager in Beijing, but he knew that, for the project to do well, the Virtual Distance between him and the project manager in China had to be reduced. So, after a particularly exasperating call, Joe "scored" the different Virtual Distance issues at play.

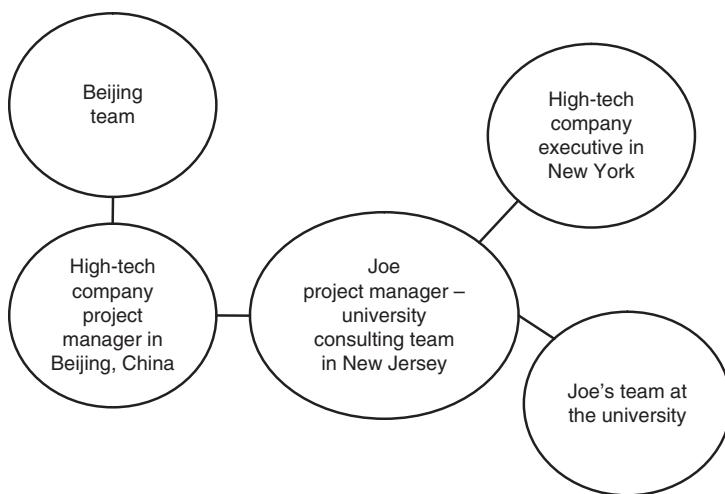


FIGURE 5.2 Joe's initial social network map.

Step Two: Assign Virtual Distance Scores

Clearly, *Physical Distance* between Joe and the Beijing manager was *high*. *Geographic Distance* was at a max. *Temporal Distance* was high, since there were many time zones between them. *Organizational Distance* was vast. After all, they worked for different organizations and, in this case, two different industries: high-tech and academia.

And Joe wasn't surprised that *Operational Distance* between them was also high. *Communication Distance* was extensive: both struggled with language differences and the inability to read body language and other social cues. They simply couldn't reach a sense of "shared understanding" via either phone or email. They also had no shared context. In fact the Chinese manager didn't even know that this project was being proposed!

And finally, though not surprisingly, Joe detected high *Affinity Distance* between them. There was no way for

them to know whether their values were aligned, and their communication styles were very different. So Cultural Distance was also high. Frustration around communications even translated into an “irrational” sense, on each of their parts, that the other was being difficult, causing further detriments to affinity building. Their troubles also stemmed from *Relationship Distance*, since they had never worked together before. The “weak ties” between them, through the executive in New York, were especially tenuous and therefore made little difference. *Social Distance* also contributed to dysfunctional behaviors. Joe thought that the formal status of the New York executive would overcome any mismatched expectations about the importance of the project. But that wasn’t the case, in part, because *Interdependence Distance* also impacted them. In the few conversations that Joe was able to understand, it seemed that the project was not in line with the Beijing manager’s objectives.

Figure 5.3 shows Joe’s initial pass at the Virtual Distance Map.

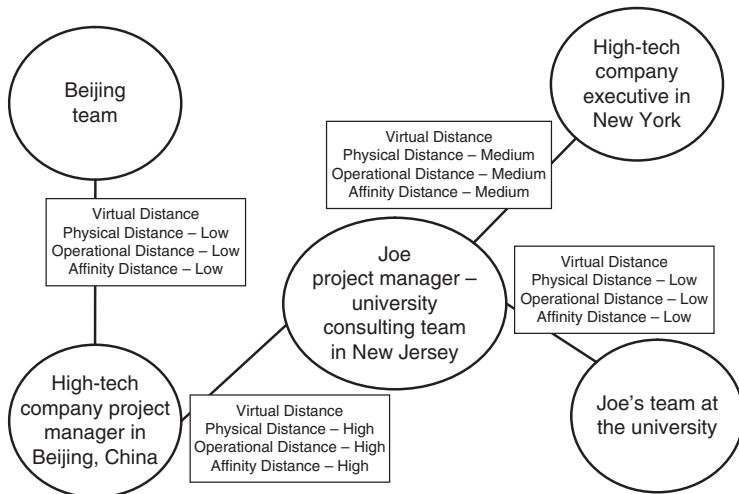


FIGURE 5.3 Joe's Virtual Distance score assignments.

After he initially mapped Virtual Distance, Joe realized that various issues had to be resolved for the project to succeed – especially in the Affinity and Operational Distance corners of the Virtual Distance Model. He knew that in order to do so, he would have to meet with the Chinese team face-to-face to spark affinity and lower the Communication Distance. So he went to Beijing, taking his university team with him, and met with the project manager and his team.

During his first trip, Communications Distance dropped despite language barriers. They were able to establish a rhythm and shared context to their conversations, which then led to meaningful understanding between them. They were then able to reach consensus on important project issues through better communications and, soon after, established a shared sense of mission.

In addition, Joe learned that the Chinese manager hadn't been thoroughly informed about the nature of the project, his role in it, and what was in it for him. When Joe explained what he had discussed with the executive in New York, the Beijing manager better understood how the initiative played into his objectives more directly. They also discovered shared work and personal values, infusing the project with new vitality. Affinity developed and Virtual Distance fell. By simply meeting his counterpart at the beginning of the project, Joe was able to reduce the Virtual Distance factors that plagued them in their initial conference calls and emails.

By the time Joe left China, he felt they'd taken a big step forward. As the weeks passed, much progress was made. Even though language differences still existed, Joe "knew" what the Chinese manager "meant" in his emails, and even regular conference calls were positive and successful. The quality of their relationship increased and, two months later, they'd completed the project's first phase. Soon after, together they prepared a presentation for the New York executive and were optimistic they'd get his approval to finish the project.

Reflecting on the experience, Joe realized he could now “rescore” the Virtual Distance between him and the project manager in China.

While Joe knew that Physical Distance would be a constant source of trouble for this global, cross-boundary project, he discovered that Physical Distance can be readily mitigated. Despite high Geographic, Temporal, and Organizational Distance throughout the work effort, Joe was able to neutralize the effects by having one face-to-face meeting in the beginning and, afterward, implementing Virtual Distance strategies that built a sense of familiarity between them. This increased trust, helped them stay focused on their roles and goals, and motivated them to help one another.

Operational Distance was lowered by the initial in-person meeting that lowered *Communication Distance*, a serious barrier at the outset. Language differences alone made collaboration difficult at first. While these issues never completely disappeared, they became inconsequential, and quality relationships were established. Later, if an email caused misunderstandings, individuals were more inclined to seek clarification by phone or videoconferencing.

Finally, *Affinity Distance* was significantly reduced, producing an overall decline in Virtual Distance. As was mentioned earlier, Joe and the project manager in Beijing quickly learned that they shared similar values regarding their views of work and success. *Relationship Distance*, therefore, basically disappeared between them, and *Social Distance*, which was also once high, also dissipated as each of them contributed valuable insights and activities to the work. Formal status differences faded, replaced by mutual respect and an appreciation for each other’s contributions. And when they saw how their individual success would be enhanced by each other, *Interdependence Distance* dropped sharply.

After a while, Joe redrew his Virtual Distance Map, represented in Figure 5.4.

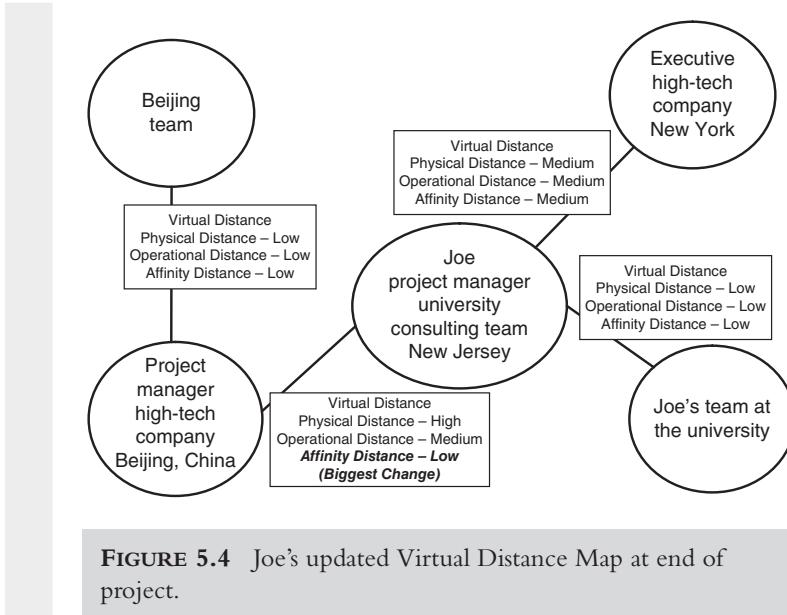


FIGURE 5.4 Joe's updated Virtual Distance Map at end of project.

But the China case didn't end there. Confident, Joe and the Chinese project manager presented the results of their work to the executive in New York. They were convinced that the work clearly justified moving ahead with a larger initiative, requiring large capital investment and other resource commitments. Much to their dismay, however, the New York executive was unimpressed with their arguments and abruptly killed the project. The two were astonished at the decision. To them, it made no sense whatsoever, given that all original goals had been exceeded and they'd shown how a larger project would enhance the company's global operations.

What they hadn't realized was that while they'd closed the gap on their own Virtual Distance, they'd inadvertently ignored the Virtual Distance spreading between themselves and the final decision maker.

Step Three: Locate the Critical Relationship Path(s)

In unifying virtual teams, we must not only identify the Virtual Distance along individual links, we also need to isolate

and reduce Virtual Distance along what we call Critical Relationship Paths (CRPs). CRPs, like critical paths in project management, highlight the people most important to a given project. Obviously, then, it's vital (as Joe learned) that Virtual Distance among those in CRPs be continuously monitored to avoid project delay, or worse, as we've seen, unintended failures.

By identifying and mapping critical relationship paths, managers can focus their Virtual Distance management efforts on those people-based dependencies that have the highest likelihood of impacting project outcomes. The CRP and final Virtual Distance scores for the China case are shown in Figure 5.5.

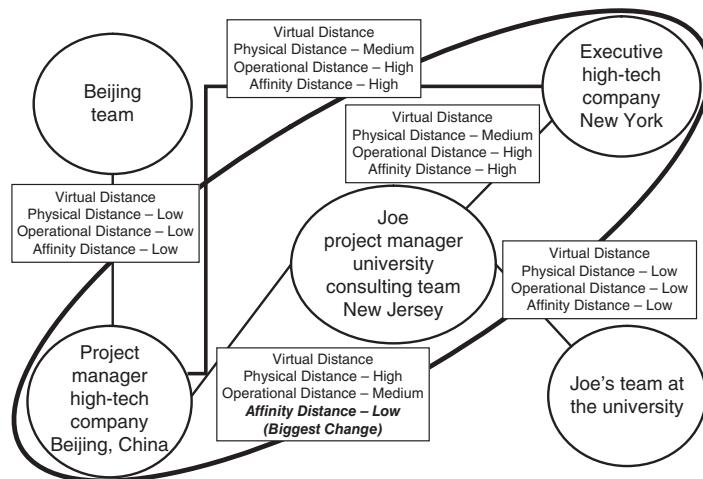


FIGURE 5.5 Critical Relationship Paths (CRPs) in the China case.

Virtual Distance Mapping is the way we help companies to “light up” specific locations in a people network where Virtual Distance impedes collaboration and cooperation. After conducting Virtual Distance Mapping sessions, leadership see the bottlenecks more clearly. This gives them the picture they need to zero in on and fix problems.

Simple to execute, Virtual Distance Mapping is the most powerful tool a manager or individual has to address Virtual Distance at the source.

There are other benefits to mapping Virtual Distance.

First, mapping allows a manager to see where Virtual Distance is creating the most risk. By pinpointing where high-stakes projects are most threatened, it's easier to prioritize target fixes. Remember, not all Virtual Distance is equally detrimental to team unity and therefore, fixing Virtual Distance where it has little to no impact is a waste of time.

Second, by mapping Virtual Distance, team members have a guide that can be used to track progress. Once the Virtual Distance levels are assigned, and CRPs are located, one can go back to them over time, to see if the solutions implemented are making a difference. Revisiting the maps also helps one to see how Virtual Distance might be shifting around in various groups and teams.

Finally, once people have built Virtual Distance Mapping skills, they're easily transferable to other projects. Virtual Distance Mapping can also be used in strategic planning and other long-term initiatives to minimize Virtual Distance before it begins to grow.

THOUGHT EXPERIMENT: VIRTUAL DISTANCE MAPPING IN YOUR OWN CONTEXT

Think of a project or work initiative in which you are involved. Begin with you in the center and draw a social network map. Include all the people involved in the project or work initiative either directly (those that you work with one-on-one) or indirectly (those involved who you think are important but don't necessarily work with on a regular basis).

Remember the China case. Make sure that you include all the organizations and individuals that can influence your project as well as those that come to mind readily. For example, if you work with outsourcing resources, include them in the map along with those that work in your organization.

Important: Do not try to map your entire social network. If you do, you will quickly find that it takes too long and becomes too complex. We have seen that, as a result, people get frustrated and give up the effort because they try to go too far.

Next, assign Virtual Distance scores along each of the connections. To do this, you need to estimate Virtual Distance between all direct and indirect links. This process does not have to be precise. It is important, however, that you think through each of the Virtual Distance issues carefully. To help you with this, we have included a Virtual Distance estimation tool in Figure 5.6.



The next step is to look for CRPs. This involves circling those most important to the project's success (see Figure 5.5). Remember that there may be more than one CRP, as we saw in the China case. To help identify CRPs, we have included a Critical Relationship Path Estimation Tool in Figure 5.7.

As an update to the second edition, we've added a more complex case that came up at a large engineering client. This case is typical of large organizations. Described below is the case background, how we implemented the Virtual Distance Mapping process, and the way Virtual Distance Mapping led to a major breakthrough in understanding the virtual work situation, which then led to millions of dollars in savings and the preservation of a key division.

FIGURE 5.6 Virtual Distance estimation tool.

Estimation	Physical Distance	Operational Distance	Affinity Distance
Low	<ul style="list-style-type: none">• Same location• Same time zone• Same work schedule	<ul style="list-style-type: none">• Team members share extensive context around where they work and how they think• No technical support problems• Assigned to one project or work initiative with little to no deliverable overlap• Other core group or team members involved in a majority of communications	<ul style="list-style-type: none">• Work group or team members usually understand and respect each other's work ethics and values• Communication styles among group or team members are highly compatible• Most of the work group members either knew each other before the start of the initiative or project or knew a lot of the same people• Status within the work group or team is based on contribution to the work, not formal titles or affiliations• Most team members share an equal stake in the outcomes

(Continued)

FIGURE 5.6 (Continued)

Estimation	Physical Distance	Operational Distance	Affinity Distance
Medium	<ul style="list-style-type: none">• Same country• Within three time zone differences• Similar work schedules	<ul style="list-style-type: none">• Team members share some context around where they work and how they think• Intermittent technical support problems• Assigned to two to three projects or work initiatives with some deliverable schedule overlap• Other core group or team members involved in some communications	<ul style="list-style-type: none">• Work group or team members sometimes understand and respect each other's work ethics and values• Communication styles among group or team members are moderately compatible• Some of the work group members knew each other before the start of the initiative or project or knew some of the same people• Status within the work group or team is sometimes based on contribution to the work and sometimes based on formal titles or affiliations• Some team members at times feel they share an equal stake in the outcomes

(Continued)

FIGURE 5.6 (Continued)

Estimation	Physical Distance	Operational Distance	Affinity Distance
High	<ul style="list-style-type: none">• Different country• More than 3 time zone differences• Different work schedules	<ul style="list-style-type: none">• Team members share little to no context at all about where they work or how they think• Regular technical support problems• Assigned to more than three projects or work initiatives with a high level of deliverable schedule overlap• Other core group or team members involved in only a small portion of communications	<ul style="list-style-type: none">• Work group or team members do not understand or respect each other's work ethics and values• Communication styles among group or team members are difficult to understand• Few if any of the team members knew each other or others in common before the start of the initiative or project• Status within the work group or team is based mainly on formal titles or affiliation• Team members do not share an equal stake in the outcomes

FIGURE 5.7 Critical Relation Path Estimation Tool.

If you are:	Estimation Guidelines for Critical Relationship Paths (If a “Yes” is checked, then the relationship is likely part of the CRP)	Yes	No
An individual contributor with no management responsibility	<p>• The person has formal authority over you within your company—either directly or indirectly</p> <p>OR</p> <ul style="list-style-type: none"> • The person has formal or informal authority over you from outside the company – either directly or indirectly • The person controls resources that you need to get your job done • The person controls budget that you need to get the job done • The person is the formal or informal champion of the work initiative or project • The person is an influential customer or user of the work initiative or project output 		
A manager or leader of a work initiative group or project team, then all of the above apply as well as consideration of those you oversee	<ul style="list-style-type: none"> • The group or team member has strong influence over other group or team members • The group or team member has strong influence and/or direct personal relationships with those you marked as critical, given the guidelines above 		

CASE STUDY – LARGE ENGINEERING CORP.

A large engineering organization was responsible for building products for both the corporate as well as government sectors. The R&D organization works with a large IT organization that contains the process improvement group. Its key players were located in four different countries, with development facilities in Germany and Spain, HR operations in Canada, and other R&D and sales operations located throughout the United States. Their products affect millions of people's safety and are used for many applications in various private as well as national security efforts around the world.

Two major issues surfaced:

1. The process improvement group was being underutilized and was about to be eliminated. However, the client knew that most of the organization's institutional knowledge resided in this group, so they were hesitant to disband it, although pressure from above to do so was mounting. Since this engineering firm dealt with companies as well as governments, much of the intelligence about processes had to be kept as secret as possible.

But there was little faith in the divisional team's abilities – not because the team was unskilled but because of Virtual Distance. Nevertheless, the CIO organization kept hiring expensive consultants to do process improvement work instead of the internal group. They were spending millions of dollars on resources that they didn't need and which should have been spent on projects that required internal, firsthand knowledge and proper clearance levels. But since the internal group and the CIO organization had high Virtual Distance between them, the group was not called on enough. Therefore, they were about to get cut when we were brought in, pos-

sibly putting dozens of highly qualified people out of work and causing “brain drain,” or loss of important institutional know-how.

2. Due to Virtual Distance, the company had also just lost a large corporate customer and suffered reputational damage. A key product had been running behind schedule, leaving the customer in a serious jam. The problems were communicated to the customer via email. When the customer tried to get a better handle on when the product might be ready, they were told to send inquiries to other departments for a status update. This became unacceptable to the customer so they canceled a billion-dollar contract. Word “got out” that the engineering firm had performed badly and, as a result, they lost other customers.



In the following analysis, we concentrate on the first issue in terms of implementing Virtual Distance Mapping.

With the Virtual Distance metrics in hand, we held a Virtual Distance Mapping workshop with senior engineering leadership and their chief scientists to go over the results, map Virtual Distance, and develop an action plan that would slow down high spending on outside consultants and save the jobs of process improvement employees.

The Process Improvement (PI) Group sat under a larger IT organization. Key Players include:

- Process Improvement – Design and Build – organization charged with talking with leadership around the organization to design new processes.
- Process Improvement – Reporting – interfaces with several reporting organizations to roll up process improvement metrics.
- Process Delivery – organization charged with installing and delivering new processes.

- Service Management – organization charged with ongoing management of assets, including hardware and software.

In addition to their peer groups, Process Improvement also works closely with other organizations that do not report to the same executive. These include:

- Business Management Group – charged with working with leadership throughout the organization to measure outcomes of all kinds of projects with an eye for what's working and what's not.
- CTOs – centralized organization that consists of all the CTOs in the organization (of which there are over a dozen). The CTO group was responsible for recommendations to their respective business units regarding new technology strategy and process improvements.
- Employee Satisfaction – group charged with continuous improvement for employee satisfaction measures.

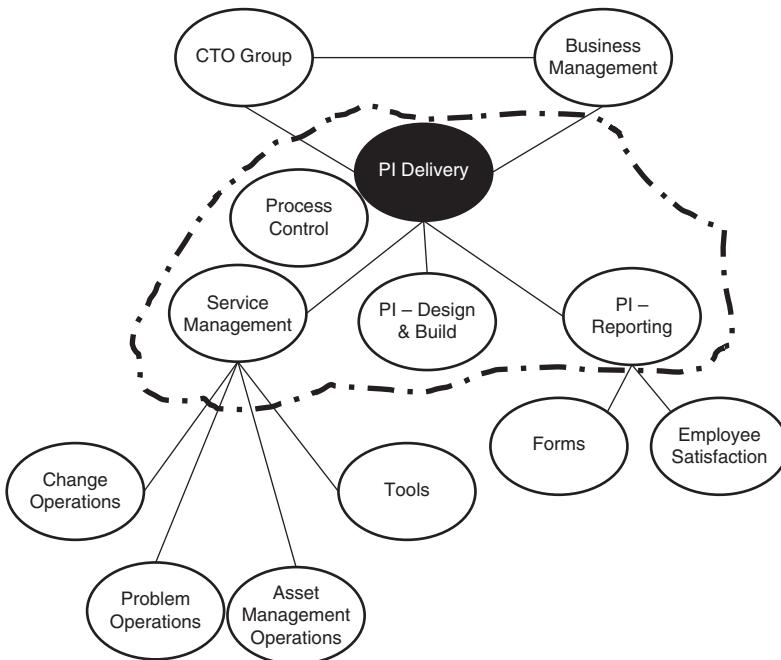
The initial Virtual Distance Map is shown in Figure 5.8.

Given the large and complex nature of this client, we switched steps 1 and 2 and located the CRP first, as shown in Figure 5.9.

Next we estimated Virtual Distance along the CRP, as shown in Figure 5.10.

It became clear that the business management group established the basis of an informal connection between process improvement and the CTOs. The managers realized they could use them to help reduce Virtual Distance between process improvement and the CTOs.

They agreed to a plan to make the business management group their champion. After representatives of the business management and CIO teams met, one of the CTOs gave the internal process improvement group a try



Dotted lines represent the core group building the Virtual Distance Map

FIGURE 5.8 Large Engineering Corp. – initial Virtual Distance Map.

with a large project. It was delivered with a high level of success and internal customer satisfaction. It led to other projects being funneled through the internal group, which led to less money being spent on outside consultants, with better results – lowered costs and higher returns. This in turn led to saving the jobs of the people working in the internal group and lowering consulting expenses for the company as a whole.

This more complex case exemplifies how Virtual Distance Mapping can provide a powerful solution for organizations struggling to find the hidden roadblocks to success and real savings. It can also lead to better competitive advantage, and can enable the development of employees in ways that allow their true expertise to come through, which makes them feel much more satisfied.

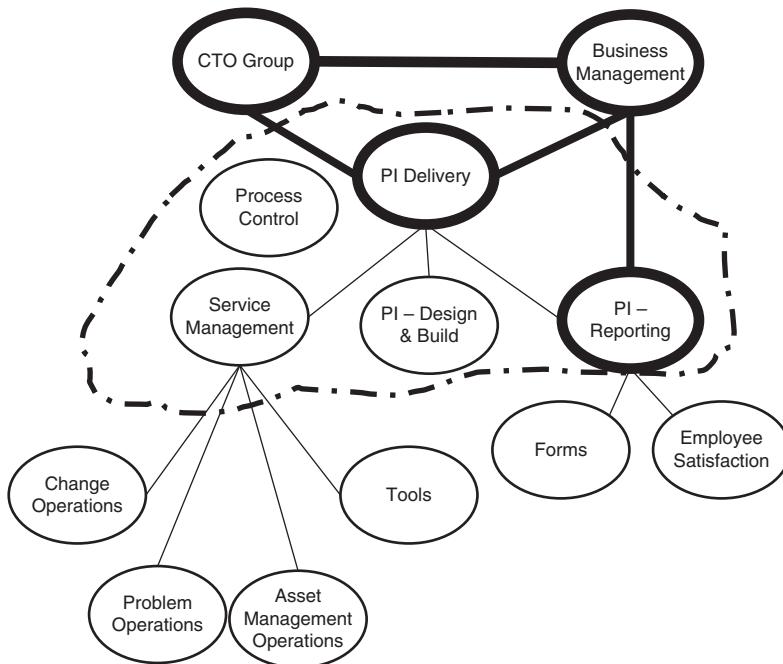


FIGURE 5.9 Large Engineering Corp. – CRPs.

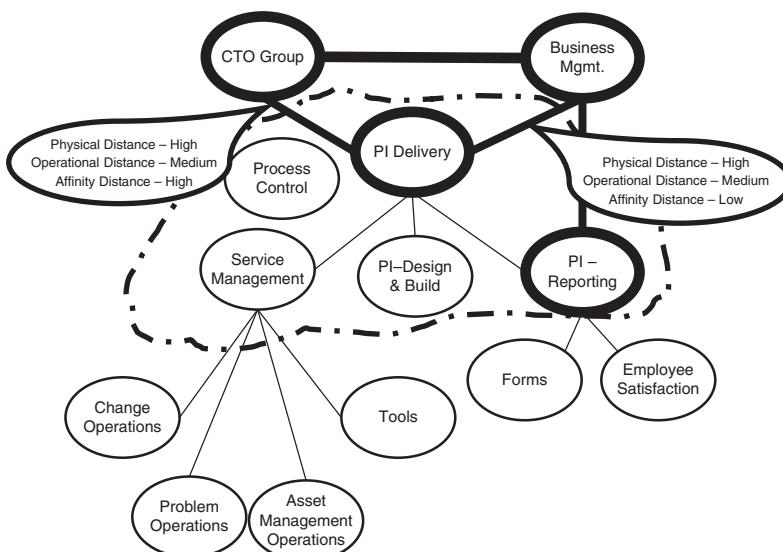


FIGURE 5.10 Large Engineering Corp. – Virtual Distance estimations.

In conclusion, Virtual Distance Mapping is akin to the headlights on your car – the process shines light on potential dangers that might drive you right off the road. Virtual Distance Mapping is nothing like most of today’s virtual team approaches that suggest fixes designed for “industrial age” organizations transported into the virtual workforce. We’ve seen this approach fail time and time again. Virtual Distance Mapping provides the road map needed to focus solutions around context-specific virtual work problems, serving up a methodology that has been missing in virtual-team problem-solving until now.

With your Virtual Distance Maps in hand, you’re ready to build your Virtual Distance Action Plan and execute resolutions that are sure to increase collaboration and enhance virtual workforce unity.

KEY TAKEAWAYS FROM MAPPING VIRTUAL DISTANCE

- Organizational charts and social network analysis are useful but fail to capture how Virtual Distance is experienced by team members.
- Virtual Distance Mapping begins with the identification of key players and understanding who works with whom.
- In Step 2 of the mapping process, Virtual Distance scores are assigned to the relationships between the key players.
- In Step 3, Critical Relationship Paths (CRPs) are identified, which highlight the people most important to project outcomes. Virtual Distance along the CRPs should be continuously managed to avoid project delay or failure.

- Our case studies demonstrate how Virtual Distance Mapping can provide powerful solutions for organizations. This process uncovers hidden roadblocks to success and leads to improvements in competitive advantage and employee development.

NOTE

1. www.mordorintelligence.com/industry-reports/workforce-analytics-market

— 6 —

Managing Virtual Distance

So far, we've talked about many ways in which Virtual Distance has gone unchecked for the last fifteen years. Beyond financial and competitive hits, Virtual Distance also leads to toxic behaviors that demonstrably erode the human experience at work and elsewhere. In response, CEOs have begun to acknowledge the critical mass of employees, partners, and others who've grown distrustful of business culture as a consequence. In a "Statement on the Purpose of a Corporation," the Business Roundtable, recently published a manifesto of sorts acknowledging that the sole focus on shareholder value as a business purpose is no longer appropriate. They stated the following:

We commit to:

... Dealing fairly and ethically with our suppliers. We are dedicated to serving as good partners to the other companies, large and small, that help us meet our missions.

... Supporting the communities in which we work. We respect the people in our communities and protect the environment by embracing sustainable practices across our businesses.

... Generating long-term value for shareholders, who provide the capital that allows companies to invest, grow, and innovate. We are committed to transparency and effective engagement with shareholders.

... Each of our stakeholders is essential. We commit to deliver value to all of them, for the future success of our companies, our communities, and our country.

Excerpt from “Statement on the Purpose of a Corporation,” Business Roundtable, August 19, 2019

However, even in an ideal world, these stated intentions may not be realizable in the short term. Yet they can still be considered helpful if they’re used as a way to surface systemic problems. As we’ve seen, Virtual Distance is increasing in intensity.

However, the effects of Virtual Distance can be reversed, as we’ve demonstrated in hundreds of teams around the world. In fact, we’ve seen that Virtual Distance can be turned into an advantage. This may appear paradoxical at first but think of the Virtual Distance Model as a flashlight in the dark.

Once we become aware that Virtual Distance has developed from the unintended consequence of digital everything, we can use it to illuminate where the problems live and the form they’re most likely to take, no matter how soaked the situation has become with unexpected toxins. We can also predict where Virtual Distance is likely to cause a problem in the future. So leaders can actually avoid Virtual Distance when the formula is applied preemptively.

By using the power of the hundreds of best practices we’ve developed from real-life experiences, reflecting different combinations of causes, we can predictably eliminate

the downsides and accentuate performance improvement moving forward.

WHERE TO BEGIN: SETTING PRIORITIES

Virtual Distance shows up in almost every virtual work interaction, whether across a conference table or video screen, whether the challenges are big or small, or whether between people placed throughout a matrix crossed with hierarchies.

We started solving Virtual Distance from the moment we introduced the topic in the Preface. As we can see in Figure 6.1, becoming aware of this digital age phenomenon is the first step to managing it. The next solution is to measure it with the Virtual Distance Index so we know how much of it we have and in what combinations. This allows us to see its footprint. Next we reveal the channels along which Virtual Distance moves day-to-day; identifying the Critical Relationship Paths (CRPs) most susceptible to high Virtual Distance uncovered by Virtual Distance Mapping. This allows teams to target the most problematic areas first,

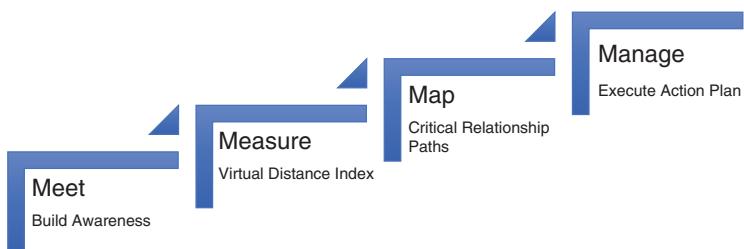


FIGURE 6.1 Managing Virtual Distance.

which allows for “quick wins” that build momentum and motivation to solve for the remaining problem areas.

We’ll use the rest of this chapter to focus on strategies and tactics needed to build and execute the Virtual Distance Action Plan.

PRIORITIZING STRATEGIES AND TACTICS TO BUILD THE VIRTUAL DISTANCE ACTION PLAN

In Figure 6.2, we show how Virtual Distance solutions can be prioritized. As you can see by the axis labels, there are two practical issues to keep in mind:

1. Ease of implementation regarding strategies and tactics.
2. Degree of sustainable impact of the strategies and tactics selected.

The highlights and key considerations are summarized in Table 6.1.

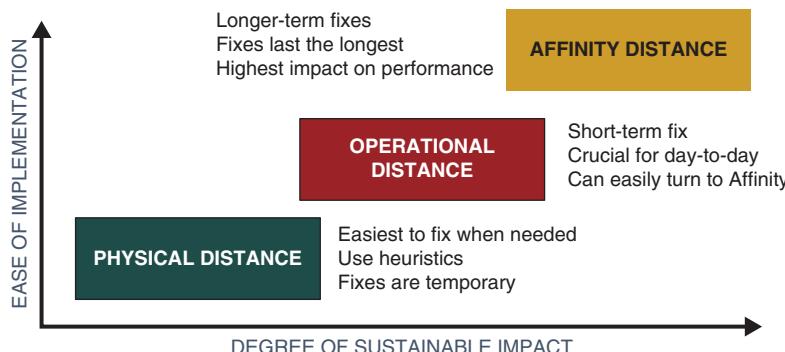


FIGURE 6.2 Virtual Distance priorities for building an action plan.

TABLE 6.1 Priorities by Virtual Distance factor.

Virtual Distance Factor	Priority Highlights	Considerations
Physical Distance	<ul style="list-style-type: none"> • Easy to implement • Resolution Impact not sustainable past the immediate/short term 	<ul style="list-style-type: none"> • Not the main cause of most virtual work challenges • In certain situations, Physical Distance does play a key role in success or failure • It can be solved easily because it's binary – either you're in-person or you're not, and if you're not, you can change the situation by traveling to another location • There is a bounded, short set of definitive heuristics to know when to be in-person
Operational Distance	<ul style="list-style-type: none"> • Easy to implement on a day-to-day basis • Resolution impact has short-term sustainability • Takes a higher priority than Physical Distance because it has more influence on outcomes – see the Virtual Distance Ratio defined in the Introduction 	<ul style="list-style-type: none"> • Solution strategies are important complements to solution strategies for Affinity Distance • Operational Distance can quickly turn into Affinity Distance so it must be kept in check • Symptoms can change from day to day so continuous management is critical
Affinity Distance	<ul style="list-style-type: none"> • Sustained implementation over a longer term for solutions to take root • Resolution impact is long-lasting and solutions have the strongest positive influence on organizational outcomes 	<ul style="list-style-type: none"> • Takes the highest priority because it does the most damage when uncontrolled • Leaders need good training and patience to manage Affinity Distance solutions through to the long term • Quick wins help to sustain action plans

CASE IN POINT

A global pharmaceutical company decided to start a worldwide initiative to be “more global.” It sounds a bit silly when you read it but in this case, like many others we’ve encountered, even though the company employed hundreds of thousands of people around the world, it was headquarters-centric and outside regions were treated like second cousins when it came to strategy and operations.

So senior leadership decided to run a Virtual Distance Index (VDI) Analysis to see just how far and wide the problem was. In preparation for the VDI Results Session we interviewed the country manager for one of their biggest markets outside the United States. He told us a harrowing story to demonstrate just how serious the situation really was.

The country manager was located in Australia, 13.5 hours ahead of New Jersey, where the company was headquartered. After the global initiative began, he sent an email to the head of communication technology requesting an “always-on” conference call bridge be set up for him and his Asia/Pacific team. He received a note back from the communication manager saying the following:

“I’m sorry but we can’t do that. We’re not open during those hours” – referring of course to the fact that while it was daytime in New Jersey it was the middle of the night in Australia and vice versa.

The country manager in Australia thought certainly the person who replied must be joking. So he replied, saying that it was a very funny joke but could he please get the conference call bridge up and running as soon as possible.

Once again he received the same reply:

“I wasn’t kidding you – we are not staffed during those hours so we can’t provide you with support and therefore we can’t allocate an always-on bridge.”

As the country manager told us this story he got quite animated, reliving the anger and disbelief he felt at the time.

This often happens when people tell stories that cause them agitation during an email conversation.

How could it be, he asked rhetorically, that this company cares anything about being more global when it could care less about something as critical as 24/7 communication access? In fact, after we ran the VDI Assessment and gave the results, the executive in charge did nothing to act on the high Virtual Distance revealed.

The country manager, having devoted a good part of his career to this organization, was so disgusted that he ended up calling the CEO to discuss the matter. The story ended later on with a failed initiative and an executive at headquarters who got fired for this and other similar sparks of outrage from country managers.



PRIORITIZATION ANALYSIS OF THE GLOBAL PHARMACEUTICAL CASE

This case clearly points to why Operational Distance must always be visibly prioritized as part of any action plan. In the situation described above, the initial request seemed quite benign – a senior leader needed access to a 24/7 conference call bridge, which the company was fully capable of providing; this was an operational request. What came next, however, crossed the line from an operational issue to an affinity issue. The message coming back, in essence, signaled to the leader that the company cared little for him or his goals. It also seemed to indicate that they didn't share the same value systems. He felt as though he remained an ancillary, instead of a primary part of the larger global strategy – all without one word being spoken. There was no intervening shared context to correct for this false assumption and this became fatal to the project.

Within the minute or two it took to send and receive these two operational emails, Affinity Distance took hold

and bored a hole right through any trust that had been accrued before this incident happened. In fact, it turned into distrust that ultimately accumulated across regional heads, culminating in a major global strategic failure that could have been avoided – at least temporarily if not altogether – by solving Virtual Distance problems. But with relationships severely damaged, or in some cases severed, it took years to recover.

STRATEGIES VS. TACTICS

Strategies give us a way to see the big picture and apply a generalized guide to approaching problems. Tactics, on the other hand, are designed as specific prescriptions that can be directly applied. During our years of work with major clients, we've developed the Virtual Distance Solution Roadmap (see Figure 6.3) to highlight strategic priorities for each of the Virtual Distance factors. Following the overview of strategies for each Virtual Distance component, we share some tables containing sample tactics for each of the three Virtual Distance factors.

Physical Distance	Geographic Distance	Temporal Distance	Organizational Distance
	Face-to-Face Decision Points	Rotation and Perspective	Realign Experience
Operational Distance	Communication Distance	Readiness Distance	Multi-Load
	Rebalance	Provision	Optimize
Affinity Distance	Cultural Distance	Relationship Distance	Social Distance
	Layering	Seed and Enhance	Recognition
			Interdependence Distance
			Discover and Reformulate

FIGURE 6.3 Virtual Distance Solution Roadmap.

Strategic Focus for Physical Distance

1. *Geographic Distance Strategy: In-Person Decision Criteria* It's important to know when it's most critical to be in-person. Most of us are virtual most of the time. So it's best to know what the triggers are that should signal us to know when it's better to be together in person.

Sample heuristics for when to be in-person:

- *The project first gets off the ground.* This helps to establish trust and familiarity among the team from the outset.
- *There are major problems that need to be discussed openly.* When misunderstandings or lack of open debate might cause major problems, people need to be able to look each other eye-to-eye to get the best possible solution to prevent or manage a crisis.
- *Presenting major project deliverables,* especially those that are complex or highly technical – communicating end results should be a coordinated effort.
- *Problems need to be brought to the customer.* This is especially important if the team has missed deadlines that could impact the customer's business.
- *Giving performance reviews and/or other career-related assessments.* Any time feedback might create a change to one's longer-term position and possibly threaten key relationships, in-person meetings are best.

VIRTUAL DISTANCE ROI CALCULATOR FOR TRAVEL EXPENSES

One of the biggest barriers to implementing in-person meetings is budget restrictions. We haven't met a company yet where managers didn't say they needed more face time but weren't allowed to spend money on travel. But this kind of

short-term thinking fuels Virtual Distance, so leaders need to be convinced it's worth the cost of bringing people together to ensure a project's success. It's imperative, then, to show, in real dollars, what the return on the travel investment will be.

The justification rests in comparing the estimated travel expenses to the opportunity cost of not acting. According to our data, project success falls by 85% when Virtual Distance is high. However, when teams meet in-person at the beginning of the project, we know that long-lasting trust is established in the quickest and most effective way, and this can lower Virtual Distance on the mediating influencers we've discussed. This goes on to lower Virtual Distance.

Since initial in-person meetings have a positive effect on all of the Virtual Distance variables, then a project costing a million dollars, from an opportunity cost perspective, is likely to cost \$1.85 million – almost double – if in-person meetings are not added in appropriately.

To track costs more specifically in another way, project managers can take the person's *loaded* cost and multiply that by time wasted as a result of budget deficits preventing in-person collaboration when needed. Loaded costs consist of salary, plus any variable pay like bonuses as well as the individual's non-payroll benefits, which can be conservatively estimated at 30% of salary. For example, if a person's total compensation is \$100,000, his or her loaded cost would be \$130,000. Based on an average of 22 days per month, 8 hours per day, the company spends approximately \$514 per day (\$64.25/hour) on this individual.

If a lack of in-person meetings leads to just one person's wasting five days of his or her time in a given initiative, then it costs the project \$2,570 *plus* the expense of fixing the problem, which, for the sake of argument, takes five days of another person's time (at \$130,000), costing an additional \$2,570. The *opportunity cost* is now at least \$5,640. And this estimation is only if *one* person is involved in the problem. But this is never the case because, by definition, Virtual Distance occurs between at least two people – a botched communication has

repercussions for *both* the sender and the receiver, for example. So our previous opportunity cost doubles and goes to \$11,280. And this doesn't include other hidden costs like potential damage done to the company's relationship with its clients or reputation damage if it involves a particularly public project. But let's say there is more than one such incident involving two people. Say there are five such incidents each month and the project is six months long. In that case, the cost of the problem could be an estimated \$340,000.

What, then, would it cost to avoid the problem? Well, if the manager were allowed to take ten people, for example, and get them together for three days at the beginning of the project, at an average expense of \$4,000 per person, the meeting would cost approximately \$40,000. If he or she had to have, perhaps, two more face-to-face meetings with half that number of people at a cost of another \$40,000, then the total investment would be \$80,000. Is this a justifiable expense if it will save \$340,000? or \$850,000? Only the company can decide.



2. *Temporal Distance Strategy: Rotation and Perspective Taking*
When there are differences in time zones, virtual meeting times should be rotated to minimize the inconvenience for team members. The main goal is to minimize meeting times that go beyond normal business hours.

Important Exception: Some people live in areas where they don't have high-speed internet connections inside their homes. It's less likely these days, but the leader should know of these circumstances and where they exist. In these cases, if a meeting is called at an hour when it's dark or in the middle of the night for a team member, then in order to make the meeting they may have to get up and ride their bike for several hours to get to an office to take the call. In one company we worked with, this was

not the only problem. The route the person had to take was a dangerous one and people were often attacked on their way. In one of the most tragic scenarios, a woman was sexually assaulted trying to get to a meeting because she had no in-home internet or phone.

The solution: Never schedule meetings that require team members in this situation to leave their homes after regular business hours.

3. *Organizational Distance Strategy: Realign Experience* Organizational Distance can be reduced by realigning experience for the employee so they can get a better view of other departments and organizations they work with. There are many tactics that can be employed. In some cases, this is done as part of onboarding. New hires learn about their own department and then rotate through other departments for a day, a week, sometimes longer. Other executives we've worked with do this by inviting representatives from different departments to give a talk about their organization during regular project meetings or "lunch and learns."

But in many cases, while well-intentioned, these tactics fall short because even the presenter can appear bored with the usual, "these are our goals, this is our structure," and so on. If it's possible, implement this strategy with tactics that give people a real experience with a "day in the life" of others in different departments.

Some organizations build this tactic into onboarding as mentioned above and some do this on a more informal schedule. In any event, people who get the option to work side by side with others get to know firsthand what it's really like to work there. This helps to build affinity that lasts over time; as the new hire or more seasoned employee settles into their work they bring that experience with them. It's quite

amazing how many informal and highly efficient practices surface as a result of having built these lasting relationships across organizational boundaries.

Sample Tactics

Sample tactics to reduce Physical Distance are shown in Figure 6.4.

Strategic Focus for Operational Distance

1. *Communication Distance Strategy: Rebalance* A key to reducing Communication Distance is rebalancing both the amount of context people have about others and their situations, as well as rebalancing the use of different communication modes.

Out of all the 10 components that make up Virtual Distance, Communication Distance is high close to 100% of the time.

Geographic	Temporal	Organizational
<ul style="list-style-type: none">• Be in-person:<ul style="list-style-type: none">• At the start of a new initiative or project• To solve critical problems that are time-sensitive• For important customer (internal/external) interactions• To give employee feedback in career decisions• Financial audits• Regulatory preparation• Use Travel ROI Calculator to determine opportunity cost• Phone is BEST substitute when in-person not possible	<ul style="list-style-type: none">• Know your time zones• Move to military time for ease• Specify ALL time zones in email meeting notifications• Rotate meeting schedules• Create “shared inconvenience”• Assign time-appropriate deadlines – don’t make things urgent that are not	<ul style="list-style-type: none">• Give “meaningful” overviews of interdependent organizations• Schedule regular interactions with team members from outside organizations• Share stories of mutual success with other organizations• Schedule team members to spend time in other organizations• Expose team members to benefits of working with other organizations

FIGURE 6.4 Sample tactics to reduce Physical Distance.

SPECIAL NOTE ABOUT CONTEXT

Shared context is the bedrock of civil conversation and forms the basis for deep relationships. It also informs every decision we make; the more context we have, usually the better (more informed) the decision will be.

As we described in Chapter 3, context is critical to putting things into perspective. With the advent of virtual work, context disappears behind a thick wall of virtual curtains. We know very little about the physical context of others, like where they are or what it's like there and how their environment may be affecting them. We also know little to nothing about the context around how they're thinking in any given moment, or overall. So we are often unable to build a shared mental model. And if we work on teams that have to solve difficult problems, and we have different views of the problem because there's just not enough shared context between us, then it becomes almost impossible to solve in this kind of vacuum.



THOUGHT EXPERIMENT

Sit down at your desk and open your computer. Make sure it's turned off.

Imagine you are writing a reply to an email.

Ask yourself the following: Who are you talking to?

Think about it.



Most people start to laugh a few seconds into this experiment, as they realize that in reality they're really talking to themselves. They begin to realize they have absolutely no idea what the person was doing when they wrote the email, what frame of mind they were in, what was happening in their life that may have influenced what they wrote (consciously or unconsciously), no idea whether the person was

dealing with serious problems, such as finances or health or children issues, right before or during the time they were writing.

We just can't know.

So we respond by inventing our own context because as human beings we need a frame through which to interpret what other people mean. That's how the human being works. It's not a weakness; it's our strength: we strive to see as much of the picture as we can before we decide what to do or what to write.

That's what builds our HOME as described in our Introduction.

But in the absence of "validated" context, we make up our own, based on our own experiences, and then project those into what we write in an email or text or whatever written digital mode we like best! We have to work with something. So we use what we're most familiar with, which is our own life. As we look at this cycle, we realize that most of the day, while answering email, we're simply talking to ourselves.

So when we get emails that cause us distress, we have to bear this in mind and find better ways to deal with the situation by expanding our understanding through added context rather than allow miscommunication and conflict to get worse.

In sum, we need to be highly self-aware to develop the discipline to consistently apply rebalancing strategies to Communication Distance.

2. Readiness Distance Strategy: Proper Provisioning The best strategy for reducing Readiness Distance is proper provisioning of resources and/or skill.

Recall that Readiness Distance has to do with the technology. It's actually the only component of Virtual Distance that's directly related to technology. After people go through an initial overview of Virtual Distance, we

sometimes get the question, “How can we fix it with technology?”

This is always a bit perplexing because the whole point of Virtual Distance is to draw attention back to the people, away from the technology. But we’ve been highly conditioned to believe technology can always solve people problems, when it can’t. With that said, during moments in the day when the technology’s not working or we’re not ready with the skills to use it, Virtual Distance can arise in this technological context.

Provision for a backup plan for when the technology fails, because we know it will fail from time to time. For example, instead of spending what feels like countless hours to get video to work on a conference call, give yourself no more than 30 seconds to fix the problem, and if you can’t, switch to a backup plan. Resist the urge to solve the technical issue at the cost of losing people’s attention; in that 30 seconds, Virtual Distance is rising. And at a certain point, it’s almost impossible to reengage people who are waiting. Have backup slides that can be sent via email. Also make sure a conference call line is in place that everyone can access if needed.

If, as individuals, we’re not ready with the proper skills we need to use the technology, we must provision for training ourselves, or ask for help using company-sponsored programs. For example, if you’re the host of a video conference call, one best practice is to get there at least five minutes early and re-familiarize yourself with the buttons, icons, etc. That way if your mic doesn’t work, you have time to fix it. If someone has a technical question, you’re more likely to be able to answer it quickly instead of searching around after the call starts, which often causes people to feel like you’re wasting their time while they get more and more aggravated.

Provisioning the right resources, either backup plans or training yourself, will help to avoid most technology-related problems. There's an added benefit in that when you've provisioned well, participants often see you as being highly organized and authoritative – lowering Virtual Distance on other fronts.

3. Multi-Load Strategy: Optimize The best strategy for dealing with Multi-Load is to reduce Virtual Distance on other factors even though Multi-Load will almost always remain high. For example, reducing Affinity Distance will result in higher trust among team members. A higher level of trust leads to a willingness to help others when things get a little too hectic. So when team members really do need a break from too much workload and Virtual Distance is low on everything else, team members feel they can count on others to pick up some of the work, which then decreases stress on the individual and helps the team get the work done.

Sample Tactics to Reduce Operational Distance

Sample tactics to reduce Operational Distance are shown in Figure 6.5.

Strategic Focus for Affinity Distance

1. Cultural Distance Strategy: Layering As we discussed in Chapter 4, Cultural Distance reflects either large gaps in value systems or, more often, a lack of knowledge about others' value systems, which then leads to assumptions that are usually incorrect. Therefore, to implement change strategies that presuppose cultures can be melded together somehow to form a homogeneous and new virtual culture is magical thinking.

Communication	Readiness	Multi-Load
<ul style="list-style-type: none"> • Regularly inject context during interactions (e.g. describe others' global regions, where people went to school, business climates, local news stories) • Also inject corporate context by way of explicitly discussing stories that bring out how the work is impacting customers, other departments, team performance • Share information about corporate activities in context of the team • Mix up modes of communication • Emphasize challenges with over-relying on one communication mode versus another • Follow Techno-Dexterity checklist – keep visible until memorized • Always default to voice when miscommunications surface 	<ul style="list-style-type: none"> • Ensure that technical support is ready when needed • Always have a "manual backup" plan – for example – a conference call bridge and slide decks that can be easily distributed • "Let go" of trying to fix technical problems with meetings no longer than 2 minutes after the meeting has started • Train team members on technology they need to work 	<ul style="list-style-type: none"> • Maintain focus on reducing Virtual Distance on all other factors • Monitor workload and adjust (up or down) if too high or too low • RECALL: There are benefits to working on more than one project or work initiative because learning can be transferred across them • This can often lead to HIGHER productivity and success as opposed to when team members are working on too few projects

FIGURE 6.5 Sample tactics to reduce Operational Distance.

We've found that a modern and practical strategy should be applied, which involves layering varying value systems in ways that complement one another but don't attempt to erase any one of them. It's more modern because it speaks to the realities of virtual workers and more practical because it relies on bringing values to the surface instead of trying to change them. Once team members know what other people value, assuming there's no malevolence or nefarious intent, people tend to enjoy learning about others' views of the world and how they prioritize what's important to them about their work and their lives. And through this learning and layering process, affinity amongst team members grows.

CASE IN POINT

At one of our healthcare clients, clinicians worked almost 100% virtually in the field with patients, mainly children, suffering from autism and other spectrum disorders.

The administrative staff were also distributed in several states and were there to support the fieldwork. However, the CEO felt that among the administrators and some of the clinicians, Virtual Distance was hindering their mission to some extent. So we used the Virtual Distance Index Assessment to reveal what was going on under the surface.

During the results session, we showed that the Cultural Distance measure came up very high in one particular and crucial administrative team. As we further discussed the results during our informal mapping session, we learned something very interesting about one of the key administrative team members.

She had grown up in a different country where friendly behavior to those outside one's most inner personal circles wasn't something the "average" person would naturally extend to others "on the street," as she put it. So when she came to the United States and found everyone smiling and saying hello, with her coworkers always asking her how she was doing or other questions considered to them as being benign and welcoming, she assumed they were being unduly nosey and responded by keeping more to herself. This made the other team members feel she was being standoffish and rude. They also assumed she did not share their values about work, which turned out to be the wrong conclusion but there was, up until then, no way to know that. Tensions rose and started to impact performance.

As we continued our discussion and she shared the reasons behind her behavior toward them, they all started to laugh. It made perfect sense and was nowhere near what everyone had assumed. It also became clear that they shared many of the same work values but simply had different value systems around communication styles and preferences based on a deep-seated

set of values that both the individual and the rest of the group developed over their lifetimes.

From there it was a straight line to developing an action plan that included tactics that allowed these different forms of values around communication to be layered – not replaced or merged from one into the other. After implementing the Virtual Distance Action Plan critical success factors improved because the tactics deployed to open communication in ways that were comfortable for both the individual and the rest of the group took hold. When we went back to reassess Virtual Distance, critical success factors had increased for this group largely because Cultural Distance between them had been reduced.

NOTE: Interestingly, this was also a case of a lack of shared context that led to Communication Distance as well. As we discussed earlier, we're whole people so the Virtual Distance factors often overlap even though they represent differentiated features. So by addressing components separately and together, results improve quickly because the new combined behaviors create a virtuous cycle out of what was a vicious one caused by Virtual Distance.



2. Relationship Distance Strategy: Seed and Enhance Relationship Distance results from not having enough “seeable” shared relationships with each other (direct ties) or with team members who might know some of the same people we know (weak ties). It’s a critical factor in the virtual workforce because “networking” and expanded social networks resulting from working this way is assumed to be strong in the virtual work model.

But this is a big mistake. The ties that bind us that we refer to in Virtual Distance don’t equate to abstract social network links produced from having a lot of “friends” on Facebook or connections on “LinkedIn.” What still matters most is one’s real experience with others either directly or indirectly.

An example of our prevailing misleading mindset around this issue shows up in millennials. Recall that

trust for others among millennials is lower than in any of the other past four generations (See Introduction – We Are the Data for more detail). Paradoxically, this is due in large part to two main counterintuitive Virtual Distance factors in Operational and Affinity Distance.

First, millennials score significantly higher on Communication Distance. This translates into the fact that they suffer most from a lack of shared context coupled with a hyper-focus on using mainly one mode of communication – digital. This leaves them the most susceptible to a lack of disconfirming information that would otherwise extend their worldview. As was pointed out earlier, they are the most exposed to “self-talk” that leaves them most in danger of letting their own thinking become a generalized reality. It’s not a valid reality, strictly speaking, but nevertheless, it leads to a great deal of distrust in others who apparently see the world differently. As a result of high Communication Distance, they’re often faced with experiences that don’t match their belief systems and they become distrustful. It’s a natural neuroscience-based response, even though it’s also a dysfunctional one.

Ironically, the second cause of this distinctive level of distrust among this generation is due in large part to low levels of real mutual ties to other people, including those they work with. It’s a paradox because people in older generations have assumed that millennials are characterized by social networks that produce meaningful relationships in high numbers. But as we’ve learned through common sense, popular press, and academic research, they don’t. We know that they are mostly artificial links that live in the shadow of incremental rank-ordered numbers tallied by “likes” or “shares” usually not distinguishable in any meaningful sense.

But this assumption is not limited to millennials. In fact, it has spread to include anyone who uses a social network. Relationship Distance in the workplace is increasing, not decreasing, as a result of technology connections that

are unconsciously experienced as proxies for real human connectedness.

The solution strategy we've found to be quite straightforward and effective is to seed new teams with people who already know each other or some of the same people. For existing teams, the best solution is to enhance relationships by sharing more information about one's real social networks in ways that quickly illuminate common ties that were otherwise invisible. The enhancement strategy works very well because it's based on a very real phenomenon – the notion of six degrees of separation. The psychologist Stanley Milgram showed that it was possible to connect any two people with six or fewer social connections. (Some of you may have heard or played the six degrees of separation game. The object of the game is to see if anyone in the group can find a link with themselves and a famous person (it used to be Kevin Bacon) in "six degrees" – meaning someone knows someone who knows someone etc. that would connect the person to the famous person in 6 links or less. Usually within 2 or 3 links, one can find a path.)

The same applies in the workplace. If you use tactics that reveal where people have worked before, what professional associations they are a part of, what activities they're involved in when they're not working, and so on, we can predictably show that as a result of this quirk of number theory, on average in less than five minutes, people start to realize they know some of the same people or share experiences via the groups they belong to.

And then something truly amazing happens. Trust is almost immediately established, not because they each necessarily like the people or experiences they have in common, but because they realize they actually do orbit in similar social circles that, at the very least, tangentially touch one another. And it's this realization that creates a bond that's often strong enough to reduce Virtual Distance

quite quickly and increase some semblance of strong trust almost instantaneously.

Here we pause, though, to offer two important cautions related to this component of Virtual Distance.

The first is that Relationship Distance can actually be too low. This is the only exception to the guideline that lower measures are better than higher measures. The reason: too low a measure here actually reflects a relationship likely built on long tenures among people who've established very close direct ties with one another. The problem it presents is that, for newcomers, it's often difficult to establish a solid relationship with these kinds of teams because they're seen as the outsider or an "other" that can't be trusted. This alone is not a new phenomenon per se; however, in our new world of virtual work, when digital mediation is almost always a substantial part of our communications, it's much more difficult than ever to break into this kind of close-knit team.

CASE IN POINT

At one of our university clients, we've led workshops for academic leaders from around the world as part of their own journeys to become higher-level leaders.

In one session, we had a participant who was a former military commander. Coupled with his experience in academia, which also tends to lean toward long tenures and tightly coupled, well-established relationships, it was not surprising that his team scored low on Relationship Distance. But when we did our analysis we found that he had crossed the threshold into being too low on Relationship Distance and we could measurably tie it to negative impacts on outcomes.

During the Results Session, we pointed out that his team score was a problem and explained why. But he strongly disagreed that this could be causing any kind of negative result. However, as he got into his working groups and started

discussing his Virtual Distance Map with his peers, he began to realize that this, indeed, was likely causing many kinds of problems, including others that we did not directly measure.

This case ended on a very positive high note. We initially thought this person may become disruptive to the rest of the group because of his first reaction to the feedback. However, just the opposite happened. As he explored Virtual Distance and saw how his action plan could really help his institution, he became a vocal evangelist of Virtual Distance practices. As he said in his review of the session:

As someone who advocates for the expanded use of technology, I found the concept of Virtual Distance extremely provocative. I believe that it is important to understand the unintended consequences of anthropomorphizing technology, especially among youth. Virtual experiences can be both wonderful and enriching, but to be maximized they must be understood as a contextualized complement to, not a replacement for, traditional, tactile, human experiences.

We use technology as a reflection of ourselves, whether that is email, a videoconference, or a text message. These curated reflections, actualized more potently through social media, are not real, just as the reflection in a pond is not the same as the object being reflected.

For any organization to be successful, Virtual Distance can and should be addressed. Addressing Virtual Distance is not a rejection of technology, rather, it is an important acknowledgment of both the power of technology in our lives and an acknowledgement of what truly makes us successful, fully developed humans.



The second caution we offer is that a successful seed-and-enhance strategy is not enough on its own to sustain low Affinity Distance over the long term. The main reason: once the people involved establish an ongoing experience of one another, they may find that they still may not build a

close enough affinity to understand ways in which they are similar. This might be through unseen interdependencies or a difference in work values that raise Virtual Distance overall.

Still, out of the four Affinity Distance components, Relationship Distance is the easiest to address in the short term. This can help to reduce other Virtual Distance facets in the mid to longer term when action plans are well designed.

3. Social Distance Strategy: Recognition We start this section by extending the case study from the section above. Social Distance was also a major issue for the leader described, as he put it:

My action plan focused on reducing Affinity Distance by taking advantage of well-developed personal relationships to reduce silos by augmenting the traditional directors meeting with cross-functional meetings focused on key initiatives: sales, international programming, and institutional enrollment. These meetings were designed to include more junior members of the division who “do the work.”

This strategy allowed me to further reduce Social Distance by focusing on problem-solving and de-emphasizing rank. Additionally, it allowed me as a vice president to share my considerable social capital to publicly acknowledge the good work of more junior staff. Therefore, a relatively junior member of the division was given the opportunity to hear my praise for her work from me, as opposed to hearing it secondhand from her direct supervisor, something which obviously meant a great deal to her. Aside from being the right thing to do, I believe this approach was successful because it develops interdependence by emphasizing common objectives.

Social Distance as defined in Chapter 3 represents the socio-emotional distance created by differences in formal rank and hierachal structures. When people are recognized for their work solely on the basis of formal position and status, Virtual Distance rises. However, when

a leader uses a recognition strategy specifically focused on emphasizing a person's contributions and shares their social capital, as presented in the case above, Virtual Distance is greatly reduced and people feel closer to leaders who are technically "above" them.

4. Interdependence Distance Strategy: Discover and Reformulate
Reducing Interdependence Distance requires discovering and revealing how virtual team members are interdependent on one another by focusing on deeper ways in which they share a common future and fate.

As with all the Virtual Distance factors, this key element of successful work becomes cloaked by hidden context that needs to be uncovered and shared.

CASE IN POINT

At one of our nonprofit clients that focuses on children's hospitals, all employees were located in the same building on two floors. The organization consisted of several departments including Membership, Research, IT, and Marketing. They all shared a common goal to help improve children's healthcare. But that's where their commonalities ended. Among this collocated set of 400 people, we measured high levels of Virtual Distance, especially Interdependence Distance.

Groups kept to themselves and there was a lot of animosity between departments that had built up over the years. They could not find their interdependencies through the cloud of Virtual Distance, as department members stayed mainly in their separate offices, using email to get their own tasks done.

After applying the Virtual Distance Index Assessment and holding a result and mapping session, it became clear that, despite their shared mission, they could not see how they were tied together in deeper ways.

So we created an Action Plan that included developing detailed cases where each department had contributed to a specific child's well-being that wouldn't have been possible if they had not been involved. Specifically, a cross-functional team was created to do this so everyone immediately began to feel closer to each other to further their larger mission. The case they developed involved the research they led, which resulted in better techniques to clean blood during children's operations and transfusions. But it wasn't just the Research Department that got this procedure into a particular hospital that saved a particular boy's life. The Membership Department had to secure the hospital's participation in the organization, which meant they had to work with the Marketing Department to target value propositions to the hospital's leadership. The IT Department was critical in creating web platforms that worked well and communication technologies that kept interactions flowing. These linkages were put together in both picture and prose and a hardcopy case was developed. The top management team sat with their groups together and separately to share stories that helped them discover their interdependence on each other and how to reformulate a view of other departments that focused on these commonalities and not the differences between them. The case was shared on the web, in emails as well as conference calls over time as a way to build other cases that revealed similar outcomes. When we reassessed Virtual Distance months later, Virtual Distance had gone down significantly and membership was rising, research was being more broadly recognized, marketing was having success with more paid events to raise more funding, and IT became more a part of all department meetings as a way to keep them involved in providing the right support structures.



Sample tactics to reduce Affinity Distance are shown in Figure 6.6.

Implementing the Virtual Distance Action Plan

The question now becomes, how does one go about making sense of all this information and taking appropriate action to solve or mitigate problems? The answer is to develop a Virtual Distance Action Plan. This serves as a way to help decide what actions to take, when, and with whom in order to minimize Virtual Distance. We have developed the Virtual Distance Action Plan template to help focus attention on the most critical issues and it is included here in Figure 6.7.

Cultural	Relationship	Social	Interdependence
<ul style="list-style-type: none">Create cross-functional teams to tackle difficult challengesSet up scenarios for people to "experience" others' valuesIncrease understanding and awareness of others' work valuesTurn "culture change" into "multicultural community"Demonstrate by example (storytelling) how people are similarExplicitly discuss "how" team members like to work and what is important to them	<ul style="list-style-type: none">Discuss other places team members have worked or livedEncourage discussion about other possible ties – for example where people went to school, where they grew up, what outside activities they are involved inCapture these social circles either formally or informally so that they can be leveraged for other projects or initiatives	<ul style="list-style-type: none">Showcase how people contribute to the work, in explicit and discrete waysGive specific examples of how a team member's activities added to the success of a projectEmphasize the "unsung hero"Share "leadership status" by association to help others be seen as having higher value	<ul style="list-style-type: none">Explicitly discuss ways in which working together led to successTell stories about shared interdependenciesMake it a "ritual" to tell these stories during regularly scheduled meetingsWrite up "case studies" about how people worked together to realize success

FIGURE 6.6 Sample tactics to reduce Affinity Distance.

FIGURE 6.7 Virtual Distance Management Plan template.

Project Goals		Use DUMB Project goals to unify a virtual workforce				
Relationship	Physical Distance	Operational Distance	Affinity Distance	Short-Term Tactics	Long-Term Strategies	
				Interdependence Distance	Quick Fixes	Competitive Strategies
				Relationship Distance		
				Social		
				Cultural		
				Distribution		
				Readiness		
				Multitasking		
				Communication		
				Distance		
1						
2						
3						
4						
...						

QUICK FIXES – SHORT-TERM TACTICS TO MINIMIZE VIRTUAL DISTANCE

As we've discussed, reducing Virtual Distance should be part of a long-term and continuing strategy. But some problems need to be addressed in the short term. Managers have more control over quick fixes, even though they might be challenging to execute. There are four basic quick-fix categories from which to build a custom plan to minimize Virtual Distance. They broadly include:

1. Judicious use of face-to-face meetings
2. Careful coordination of work
3. Ad hoc cross-functional team development
4. Communication improvements

Judicious Use of Face-to-Face Meetings

In-person meetings are the quickest way to overcome the specific challenges described earlier. Face-to-face meetings can improve trust among team members in the early stages of a project or when there are critical problems that need to be discussed among the team or with customers.

Careful Coordination of Work

Diligence around work coordination can rapidly help to minimize Temporal Distance, Communication Distance, Multi-Load, and Relationship Distance. Each of these factors disturbs the natural ebb and flow of group work.

Important guidelines for coordination:

- Get agreement from the team about when to use real-time versus asynchronous communications like

email. By doing so, there should be fewer scheduling difficulties and better expectation management.

- Make sure that turnaround times for any given communication are well understood by all. Does the team expect someone to answer them within a minute? An hour? A day? While obviously there will be variations, in the beginning, don't leave this ambiguous. Establish norms around response time frames.
- Do not use “urgent” on email messages if the work is not due immediately. This causes disruption in work schedules that is not necessary.
- Know your time zones. Memorize time differences between you and your team members. This will create better behavior when it comes to optimizing schedules.
- When confirming meetings in email, always include meeting times in terms of everyone's time zone.
- Rotate meeting times to instill a sense of fairness in the process of scheduling work.
- Understand as a manager that not everyone is gifted with good time-management skills. Help team members prioritize work and check in to see how they're handling the workload. This will also help uncover multitasking problems.

Ad Hoc Cross-Functional Team Development

To expeditiously solve problems related to Organizational Distance, Interdependence Distance, Cultural Distance, and Operational Distance, create temporary teams made up of representatives from different places or organizations. This helps to quickly build trust among a large virtual workforce.

For example, we spoke with several military personnel about a consolidation of locations that was done using a virtual team structure. A boundary-spanning team was assembled, which included a member of each division involved in the restructuring. Each team member represented the interests of his or her own organization, while at the same time they developed a group identity among them. This helped everyone in each location to feel more dependent on one another and bridge values differences. It also facilitated cooperative communication among people who initially had trepidations about talking with one another openly.

When forming cross-functional teams to overcome Virtual Distance, consider the following:

- Select members who have a strong knowledge of the organization and good skill sets, and are trusted members in their own communities.
- Involve them regularly in “local” decisions to minimize communication problems and maximize ties to other efforts.
- Respect group input and execute recommendations consistently. Some organizations we have worked with have been initially successful in forming cross-functional teams to overcome Virtual Distance, but then ignore their input. The most successful are those that leverage boundary-spanning teams to overcome major issues.
- Rotate members so that multiple people from each organization have a chance to participate. Like an advisory board, members get the chance to hear about global problems and feel more connected to group goals.
- Make sure to include representatives from all locations. At one pharmaceutical company we worked

with, the creation of an advisory council, consisting of managers from each of the company's global operations centers, was important to moving past major Virtual Distance blocks.

Communication Improvements

Communication problems strongly influence every aspect of Virtual Distance. They're the most insidious issue in today's global workforce and overcoming them requires a persistent effort by both team members and their leadership.

There is not enough room in this book to detail all of the communication practices for the virtual workforce. We could probably have written an entire book on this subject alone. For our purpose here, we focus on the issues that fan Communication Distance, to keep this section a manageable read. We start with context and interpretation recommendations and go from there.

- Share context information whenever possible, including environmental conditions such as the weather, noise levels, office space conditions, or other environmental concepts that are universal.
- Be aware of contextual distinctions between you and others. It helps to bring a conscious awareness to your differences, and this can itself go a long way toward changing behaviors.
- In email or voice exchanges, focus on using words that are easy for everyone to understand.
- Use bullets and outlining as much as possible to keep exchanges simple and avoid misinterpretations.
- When sending instructions, model emails after recipes in a cookbook.

- Spell things out, if needed, and avoid using acronyms that others might not understand.
- Try not to read too much meaning into email. This is hard because we do this naturally and unconsciously as human beings. But it's a waste of time because the chances of your understanding the exact same thing the person was thinking when he wrote it are about zero.
- When on calls, listen to every word a person is saying as though your life depended on it. If you thought active listening was hard in face-to-face settings, when you're remote, it's obviously harder.
- Err on the side of formality – don't use sloppy grammar because this is even more difficult to understand and shows little respect for others at work.
- Weigh the trade-offs for different communication modes. Use the face-to-face guidelines above when needed. Phone or videoconference is the best substitute but is not always possible given coordination problems. If the video is low quality or technically unstable, then Readiness Distance could become a problem.
- Select an email etiquette guide you're comfortable with (many are free and can be obtained on the internet). Get agreement that everyone will follow these guidelines. This way, norms begin to take root and expectations among all can be better managed.

Short-term tactics are an important tool in managing Virtual Distance and need to be employed constantly. For quick fixes, focus on the four tactics outlined and you are likely to see a spike in performance due to lower Virtual Distance.

However, these tactics will only go so far. Seen another way, they are reactions to Physical and Operational Distance as we define it. But in the long run, developing

strategies to lower Affinity Distance will have the most sustainable impact on the bottom line and competitive advantage.

KEY TAKEAWAYS FROM MANAGING VIRTUAL DISTANCE

- Managing Virtual Distance begins with a prioritization of strategies and tactics to build a Virtual Distance Action Plan.
- The Virtual Distance Roadmap highlights strategic priorities for each of the Virtual Distance Factors.
- Reducing Geographic Distance requires understanding when it is critical to be in-person together.
- Understanding the differing perspectives and context of other team members reduces Communication Distance.
- Organizational Distance is reduced by allowing employees to develop a better understanding of other departments or organizations.
- Communication Distance is reduced by rebalancing both the context we have about others and the communication modes that are used.
- Readiness Distance is reduced by ensuring that employees are fully trained on the technology and also planning for contingencies when the technology fails.
- Multi-Load can be reduced by focusing on reducing other key aspects of Virtual Distance which will increase team member trust and mutual helping behavior.
- Reducing Cultural Distance requires an understanding and appreciation for team member similarities as opposed to a focus on differences.

- Relationship Distance can be reduced by seeding teams with members who have direct ties or at least share weak ties.
- Social Distance is reduced when people are recognized for their work and the social capital that they bring to the team.
- Reducing Interdependence Distance requires revealing how team members are dependent on one another for their common future.
- Managing Virtual Distance requires long-term and continual strategic solutions but short-term fixes can be used to address immediate problems.

— 7 —

Redefining Teams

Up to now, we've categorized members of the virtual workforce as belonging to one team or another. That's because, as a corporate society, we've been using this terminology for decades. Teamwork – or that notion, anyway – has actually been around much longer. And even in our global age, when the nature of work over the past decade has changed in every imaginable way, the word "team" is still used to describe basically any collection of resources that loosely work together around a common goal.

But does this still make sense? We don't think so entirely. In fact, the word "team" can be a misnomer and, summon up behaviors that may unintentionally increase Virtual Distance in some cases. So we turn our attention to teams and explore why and how this idea could be modified to better face the digital age.

A BRIEF HISTORY OF TEAMS

Even before the Industrial Age, work was done by groups gathered as apprentices under the tutelage of master

craftsmen. These groups can be traced as far back as the twelfth century and were called guilds.

Together with mutual aid, the “honour” of the craft defined the purpose for which guilds existed. There was a sense of pride in the “misterium artis,” in the special technique and skill known only to oneself and one’s colleagues, and in the excellence of the finished article. Artefacts must be “loyal.” To be a skilled craftsman was to occupy and fulfill a recognized role, an officium (lit. duty), with its own dignity.¹

Guild members were bonded together by a sense of individual pride as well as honor for the group as a whole. Guilds gave way to other kinds of unified organizations and evolved into professional societies and trade unions. And while the number of unions has declined in recent times, the part they played in establishing roles and affinity among specialists who considered themselves peers was an important one.

More recently, during the early twentieth century, Kurt Lewin, a renowned psychologist, made famous the concept of group dynamics.² He showed that group motivation was rooted in a shared sense of interdependence around tasks as well as fate – future success or survival. This discovery further fueled the team discussion. Around the same time, Abraham Maslow developed the *Needs Hierarchy Theory*,³ which described an individual’s motivational structure. Groups were an important part of this model. Right above physiological and safety needs were social needs, which included the necessity to have friends and be accepted by other people. According to Maslow, this then led to the desire for esteem, derived from one’s self-respect as well as the approval of others. He argued that if these group needs were not satisfied, both the individual and the organization would suffer. These theories, along with others, like Elton Mayo’s evidence about how productivity

in groups improved when they knew someone was paying attention, provided a deep well of research that coagulated into a unifying idea about groups, commonly referred to today as *teams*.

An entire industry sprung up around teamwork. Many of us recall going to team training. This sometimes included watching videos starring football stars to demonstrate why teamwork was so important. As the film rolled on, full of emotionally charged effort, hardships, and victorious celebrations, the engaging voice of the narrator reminded us that there is “no ‘I’ in t-e-a-m-s.” Who could forget it? And when the video was over, everyone felt a renewed sense of appreciation for one another.

Team compensation also surfaced as an important financial motivator. Variable pay structures were built to support group work. Many large human resources consultancies launched entire practices specializing in team compensation. Nonfinancial as well as financial bonuses were, and still are, given based on both individual and team performance. One of the most pervasive team reward systems was designed for sales. In this system, a large portion of commissions or bonuses is paid for individual performance. But, typically, there’s also some percentage paid for group quota achievement. Salespeople are notorious for acting in their self-interest, but they often feel “pressure” to perform on behalf of the team as well. When they succeed and work well with others, they’re often promoted to management positions and beyond. Many C-level executives have a history in sales, in part because they did well contributing to the team.

But for corporate departments other than sales, like manufacturing and production, natural groups designed around revenue contribution were harder to form. That changed when teamwork models, most commonly built on quality objectives, began to surface. By 1972, five million

workers belonged to quality circles (QCs) in Japan.⁴ Soon after, many American companies followed suit, implementing corporate-wide quality initiatives. Today, Six Sigma is a quality standard used throughout many corporations worldwide. This approach depends on teams achieving excellence.

It wasn't just operations and production departments that were changed by the concept of teams. In 2000, Jean Pierre Garnier, the chief executive officer (CEO) of GlaxoSmithKline, gave a talk at the British-American Business Association about his use of teams to improve innovation. Garnier described the reshaping of research and development (R&D) at the giant pharmaceutical company. Scientists were put into "start-up"-like groups, each of which had its own CEO. They were given free rein to go after finding new drug compounds. The goal was to create a "competitive spirit" and drive members using common goals designed to benefit the group. Across most industries, team formations sprang up throughout the enterprise and creative managers found appropriate rallying points around which to motivate them.

TODAY'S WORKPLACE

As a result of forces that gathered quite recently, today's organizations are more fragmented than ever before. Unlike the "closed" organizations in which teams were initially formed, the boundaries of modern companies are not well defined. As the last millennium moved into its final decade, C. K. Prahalad and Gary Hamel popularized the idea of "core competencies," which led to the splintering off of many departments considered organizationally superfluous. Core competencies were organization-specific strengths defined as "an area of specialized expertise that is

the result of harmonizing complex streams of technology and work activity.”⁵ As an aside, note the emphasis here on task and process, reminiscent of Frederick Taylor’s model from a century ago. They espoused that companies rid themselves of any part of the business that didn’t directly support the company’s core strength.

At the same time, anxiety began to grow around the potential “Y2K” problem. The Y2K bug was widely anticipated to wipe out computer systems around the world. Most feared that when the calendar turned over to 2000, the billions of lines of code running everything from power plants to credit card processing wouldn’t recognize the “000” in the date and therefore terminate in an error, bringing everything to a halt. American Express, for example, realized in the mid-1980s that this might cause a problem, and had been working on repairing all the code for more than fifteen years prior to the event. But most organizations waited until the late 1990s to focus on fixing this potential issue. Programmers and systems engineers were hard to find, and there weren’t enough to fill the insatiable need to repair software systems worldwide. So many corporations that had historically relied solely on “in-house” talent to work for their highly valued information systems reached outside the company walls to find qualified talent to help. This began what is now a common practice: hiring low-cost resources for what is considered to be “mundane” work.

These two catalysts – a focus on core competencies and the race to fix potentially devastating computer bugs – caused massive workforce change that led to the corporate structures we now think of as commonplace. Many companies began to shed whole divisions, to (1) center internal resources on specialties, and (2) move high-volume, low-value work, like fixing code, outside traditional company boundaries. In many cases, both strategies

resulted in more work not just being sent out, but also commonly offshored to other countries where labor was much cheaper than in the United States. Now, of course, outsourcing is one of the mainstream strategies used to lower costs.

The immediate cost savings these changes yielded were irresistible to company executives interested in elevating stock price and profits. So as the twenty-first century dawned, information technology (IT) and operations outsourcing soared. Around the same time, another kind of corporate dilution ideal was becoming popular. Harvard professor and author Henry Chesbrough introduced the notion of “open innovation,”⁶ a way to break apart innovation in new product development. It was centered on the idea that technology advancements had created the opportunity for organizations to reach beyond their time-honored borders and look outside for creative resources and, ultimately, profits. Specifically, Chesbrough defined *open innovation* to mean that “valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well. This approach places external ideas and external paths to market on the same level of importance as that reserved for internal ideas and paths to market.” This idea soon won the hearts and minds of many Fortune 500 CEOs. Companies saw that they could tap expertise around the world. Open innovation led to even larger increases in workforce development outside the company and to partnerships that, up until then, wouldn’t have been considered. Competitors joined forces in what was, and still is, hailed as open relationships, where information is shared freely and resulting ideas and inspiration leads to new products and services that find their way to bottom-line boosts. In the open innovation strategy, just like core competency and outsourcing, corporate walls were torn down in favor of an unbounded environment.

This trend toward disaggregation in every part of the organization was accompanied by a surge in the use of mobile technologies and information and communication technology (ICT). Businesses realized that not only could they cut costs and increase the possibility of innovation investment returns, but productivity also could be improved by leveraging technology and high-speed communications. Personal digital assistants (PDAs), which included Blackberries and other personal productivity devices, became commonplace at the start of the century. With the later emergence and ubiquity of smartphones people were equipped with everything they needed to work from anywhere at any time, which, as we've described, contributed to the formation of the virtual workforce – both inside and outside the corporation.

But one of the detriments of this limitless, “always-on” structure is that it’s difficult for any one individual inside of it to imagine himself attached to a shared goal. With all of the segmentation within functions, processes, work streams, and especially relationships, it’s not always possible for any one objective to be internalized by everyone involved in getting the work done. And when that’s the case, it becomes a major problem to develop what Lewin called a shared fate, to motivate groups to work as teams.

A related concept, “shared mental models,” is frequently emphasized by team researchers as a key to effectiveness.⁷ A team has a shared mental model when all members have a common understanding of the objectives, the knowledge necessary to complete the objectives, and the deadlines for accomplishing the objectives. The notion of shared mental models works for static teams where members and objectives are stable, but as we shall discuss, a different notion is needed for the temporary team structures that dominate much of the global workplace. Amy Edmondson, a prominent team scholar, suggests that new approaches are needed that acknowledge that

today's teams have to operate without the stability that characterized teams in the past.

The elimination of huge chunks of corporate infrastructure in almost all departments, and the vast virtualization of the workforce across a global spectrum, has changed the nature of work in profound ways that impact us at a personal level. Human resources are now spread out in every way, people spend more time with their computers than they do with each other, and communications are, for the most part, filtered through technology channels.

The underlying structures that made teams work the way they did have been widely obliterated. The new state of work creates unintentional disruptions to “traditional” group dynamics. In light of virtual work as we’ve described it, it’s difficult to imagine how any one group could be defined, as a “team” in the way we originally thought of teams in the past. So the use of *teams* as a metaphor for virtual work groups is, in some cases, misleading.

In traditional teamwork, strong emotions about a larger purpose and a clear sense of interdependence motivate members to act. But if that’s not the case, and companies still use this idea as a way to build motivation, then the effort may turn out to be a waste of time, or create expectations that are difficult for many to achieve. Recall that as far back as when guilds were predominant, people were motivated to work together by a “calling” of sorts – in that case, honor and pride. Lewin’s group dynamics were driven in large part by feelings of close links that manifested as a visceral sense to shape a positive and shared future. Working together on tasks, those in the group felt that goals could be realized. Maslow knew that without socially satisfying interactions, a person’s motivation to perform would fall off. And Mayo, who poked a huge hole in closely held dogmatic beliefs about the person as a machine, proved that people as a group perform much

better when there is a feeling that others care for them as being more than a cog in a wheel.

However, it is no longer the case that virtual workers build emotional ties to one another in the ways that people have done for centuries. The loose organizations of the digital age are not usually built for this purpose. If anything, individuals en masse have become more like the specialists of the guild era, only there are no master craftsmen in the lead, and there are millions scattered around the world, leaving a schism between individual performance criteria and personal motivation to achieve collective goals. And unlike the low- or unskilled workers of Taylor's era, today's professionals are highly trained. Many expect open communication instead of strictly controlled information streams espoused by the father of bureaucratic organizations.

So as we look at organizational resources today, we must ask ourselves if we can really say that the workforce operates in teams, virtual or otherwise. Are people structured as closely linked groups who, as a whole, are motivated by deeply emotional and shared beliefs centered on a common purpose? For many, the answer is no. Splintered organizational structures and isolated work efforts often prevent teams, as we have come to understand them, from forming. And the disconnects that exist, between habitually thinking of ourselves as teams and the disconnected reality, has led to a resurgent scramble to find solutions for how to best manage what are commonly called virtual teams.

But after researching much of the literature and popular books on the subject of virtual teams, combined with our experience over the past fifteen years with dozens of large clients around the world, it has become evident that issues framed as "team dysfunction" in today's virtual workforce are not really that at all. Teams are not really dysfunctional.

They are simply not really teams.

Therefore, it's the classification system and the associated metrics that go along with it that are, in fact, dysfunctional. The problems among today's vast global professional majorities are much more profound than those described in the volumes on this subject; the problems today are symptoms of a much bigger problem – that of a fundamental structural vacuum created by a lack of an organizing principle formulated around groups in this new age. Scholars are now recognizing that there is a big gap between much of the research and what is actually happening in organizations.⁸

At the individual level, the absence of any tangible scaffolding on which to build shared identities and goals has created a black hole for many of today's workers in need of some sort of unifying and meaningful structure that fits in with the kind of work they do and the lives they lead. Without it, behaviors are falsely identified as team problems. But the fact of the matter is that in the long term, all human beings need to feel as though they are part of something bigger – and this remains elusive and unfulfilled in the group known today as the virtual workforce.

But if it's not realistic to use the image of a team to develop the inspired motivation needed to reach peak performance, what, then, might replace it? We believe the answer rests in a new form that we call *virtual ensembles*.

VIRTUAL ENSEMBLES

There are many kinds of assemblages that occur naturally in work-related activities that don't form as a team per se, but which nonetheless accomplish group goals. In the wild kingdom, for example, zebras are born with what appear to be senseless random patterns of stripes. As individual animals, they spend their time grazing and looking for food. However, each unique zebra serves a greater good. Under attack, a single zebra couldn't survive against the ferocity

and strength of a hungry lion. When they come together by the hundreds to form what looks to the lion like one gigantic animal, they ward off fatal attacks. The interloper flees because an animal of such seemingly enormous size would surely eat them for lunch. The zebras live as both individuals and herd members, depending on the situation and their exposure to risk or vulnerability at any given time.

An example of how this kind of temporary group formation happens among workers is in cockpit crews. Scheduling crews to pilot a large plane is complicated. The physical whereabouts, flying time, and availability of potential crew members has to be considered, as well as their special skills. So when a crew is selected to get the plane to its destination, they may have never worked together before. But as soon as they enter that small space, each of them knows they are closely linked by a common goal: to get the plane to its destination safely. There is, of course, great risk to each of them if they don't, and not just for the obvious reason – to avoid a crash. It's also because their future careers depend, in part, on how each performs in the presence of the others. So, during the flight, they cooperate for these reasons and more. When the final destination is reached, they leave the plane and go back to their individual lives. They spend time apart sharpening skills and acquiring new learning. And the cycle of getting together, flying planes, going back to home base, and so forth continues throughout their careers. Over time, some begin to work with the same individuals repeatedly. In these cases, stronger relationships can form, which leads to deeper trust and camaraderie. Friendships outside of the workplace develop. But no one is forced to build these kinds of relationships merely because the artificial nature of an organizational structure assumes this kind of bonding.

Many in today's digital age work in one context and join with different people in another. Sometimes they might be

remote or go to an office where they work at a desk or cubicle; at other times, they gather with others, either in-person or electronically. When those interactions end, they go back to their original context, set apart from the group.

This cycle of gathering, going away and working locally and/or alone, and then regrouping is akin to the zebra in the wild or the pilot in a cockpit crew. It's also very much like jazz ensembles, where musicians learn on their own but exercise their unique talents in a group. Musicians are much like digital age professionals, too, in that they have a kind of solitary "relationship" with their work. Musicians spend time with their instruments, as professional workforce members do with their devices. So for both types of professions, there's a sense of seclusion even when physically among others while working.

They are similar in other respects as well. During live performances, ensembles come together in a way that's coordinated and timely. Each member has to be in sync with the others, or else the music won't sound melodious. They are joined in a common goal – in this case, to inspire, soothe, motivate, or even perplex. In any event, they can reach their shared goal only by operating together seamlessly. Members of virtual projects also have to come together and perform. Each has to contribute his or her share of the work in a timely manner and establish harmonious communications with others to achieve goals.

Jazz ensembles meet mainly for three reasons. First, they gather to create new kinds of music. This is often done through improvisational sessions, during which each of the members experiments with an idea he or she has usually thought of beforehand. These get-togethers are called jam sessions. (Some organizations even use the term jam session to describe online meetings.) Second, musicians get together to rehearse or fix problems in a piece. These can be thought of as "workout" sessions, where members work out difficulties, practice together, and hone group efforts.

Finally, they get together to perform. The ultimate satisfaction for many comes in the audience's appreciation for their work.

Virtual workforce members get together for only 3 reasons the same reasons. First, they get together to innovate, whether it is to invent a new product or to create project plans. Second, virtual group members get together to work out problems. During status meetings and at other times during the work initiative, members join to overcome obstacles. And third, virtual groups come together to produce a final deliverable: a product, service, or software application.

In many respects, members of the virtual workforce are much like those of jazz ensembles. Recontextualizing the notion of a group – why it's formed, when it's important for members to be together, and how to develop common goals that make sense – is an important way to shake off the unconscious denial of today's changed workforce. With the ability to see something in a different light, it is often possible to see ways to make improvements or changes. To get a better sense of this, let's look at a way to assess groups based on ensemble models. A comparison chart is shown in Figure 7.1.

In summary, the structures within which people work have changed dramatically in a very short period of time. Management principles that encourage companies to disaggregate the work, as well as the rising influence of technology that separates people from one another and allows them to connect anywhere at any time, have come together to create a workforce in which the members are no longer necessarily tied to each other through organizational attachments or workplace norms. Therefore, many of the organizing philosophies used to motivate, evaluate, and reward individuals have also changed. However, our work practices and mental models about what encourages people to cooperate have not kept up. While there remain some people who might be thought of as working in

FIGURE 7.1 Ensembles and the virtual workforce.

Ensembles	Virtual Workforce
Is the piece technically well executed?	Is the project on time, on budget, and of high quality?
Does it exploit a variety of elements of music (i.e. rhythm, harmony, melody, texture/timbre)?	Does the project make use of all members' skills and talents, maximizing innovation and problem-solving?
Is the chief attraction not the music but the words?	Is the chief attraction not the tasks but the goals and relationships?
Are the elements of the work highly integrated so that each supports the other's function?	Are the members working together, and are they appropriately integrated into the work effort?
Does the piece appeal on a variety of levels – intellectual, emotional, spiritual?	Does the project meet the many needs of workforce members, customers, company, other constituencies?
Is there a feeling of “musicality” about it?	Have team members established a good rapport and rhythm, leading to project successes?
Is there satisfying formal organization to the way the gestures are presented and developed?	Do members enjoy their roles and do others enjoy working with them?
Is there a good balance between familiarity and variety, appropriate for the length of the piece?	Is there a good balance between innovative solutions and known solutions to similar kinds of problems?
After having been listened to many times, does the piece still have appeal that is based on some new revelations rather than solely on comfortable familiarity?	After having worked together on different projects, are members still inspired to find new ways to approach problems, or has the group settled into routines that stifle innovation or problem-solving?
Do you feel positively stimulated, better, richer, fuller, or improved in some way for having heard the piece?	Are the company and the individual members better off as a result of the group's efforts?

traditional teams – those who are permanently assigned to one group, work together in the same place, train together, and work toward clearly articulated common goals – the vast majority of the virtual workforce does not function in this way. Recent research has supported our idea in a study of multinational teams.⁹ They use the term “meta-teams” to describe an intermediate team-like structure that allows virtual ensembles to group together to accomplish organizational goals.

There are structures, however, in which people can see themselves as a group without the ties that bind teams together. We have termed these “virtual ensembles” and used the metaphor of musical ensembles as a way to frame the discussion. Based on what makes an ensemble successful, we can begin to craft metrics that better reflect competencies and requirements for the virtual workforce member in the digital age.

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— 8 —

Virtual Distance and Technology

A lot has changed since our first version of this book was published. Mobile devices continue to become more feature rich. Platforms for video conferencing have also evolved and provide low-cost alternatives that have largely been used instead of meeting in person. The speed of technology has increased to the point where we now have 5G networks facilitating communications in new ways.

Despite all of these changes in technology we are still people. Virtual Distance is a people-based issue and technology does not solve people challenges – people solve people challenges. It's true that technology enables virtual work. However, we mustn't lose sight of this most important point.

In the first edition we were encouraged to include a chapter about the use of technology in the workplace and how people might leverage tools to help their Virtual Distance initiatives.

However, we want to emphasize that we are not recommending technology as a solution to reduce Virtual Distance. A heightened awareness, the Virtual Distance metrics and all of the strategies and tactics we've discussed so far form the foundation for how to reduce the affects of high

Virtual Distance and leverage its power as a unifying concept all over the world. Having stated that, we've kept the chapter intact in this edition, because the main points about how to use technology in support of Virtual Distance strategies, still apply.

Concepts such as social presence and media richness maintain their importance as they relate to Virtual Distance challenges and solutions.

* * *

So far, we've talked a lot about how human qualities and work conditions create Virtual Distance. You may be wondering at this point about Virtual Distance and its relationship to technology. We include both hardware and software in our use of the word technology, which makes virtual work possible.

It's an understatement to say that virtual work has increased rapidly. A recent survey, for example, found that the increase in telecommuting (working from home at least half-time) since our last book was published is 159%.¹ While telecommuters are a significant part of today's workforce, they represent only a fraction of the work accomplished virtually. Work-related communications can now take place at coworking offices, coffee shops, airport terminals, and anywhere we can get a connection, even on the airplane itself, which was, ironically, one of the places executives liked best as a way to "get away" and disconnect. They told us that it was on planes where they usually got some of their "best thinking" done. So much has indeed changed.

By the time this book is in print, there will undoubtedly be more new products and new technology available. Trying to make sense of all this is a difficult proposition, but by using Virtual Distance as our starting point, we can provide a framework for thinking about which solutions may

be right for any given set of circumstances, and when they can be used most effectively.

As is now obvious from what we've talked about so far, the key to working together effectively, of course, is communication. The internet, phone, and audio and videoconferencing have created a diverse set of tools that can be used to facilitate communication and collaboration across distances ranging from thousands of miles to a few meters. How and when we use these tools, however, depends on a number of different factors. Two of the most important are what psychologists call social presence and media richness.

Social presence is the extent to which a communication medium supports a feeling of presence and a sense that those involved are jointly interacting. In a group setting, it involves feeling like you're present or "in the moment" with other group members and able to interact freely. Media richness is closely related to social presence and includes several different characteristics. Media are considered "rich" when:

- We have the ability to use natural language rather than symbolic information.
- We have a lot of paralinguistic cues, such as tone of voice, facial expressions, and gestures.
- We have the ability to personalize information.
- We can get rapid feedback.

We can place various modes of communication on a continuum of social presence and media richness, as shown in Figure 8.1.

At one end is in-person communication, which has maximum social presence and richness. We have all of the visual and paralinguistic cues at our disposal to get our message across and make sure that we understand each other. At the other end is Morse Code, a purely symbolic mode mainly accessed by listening to the sounds

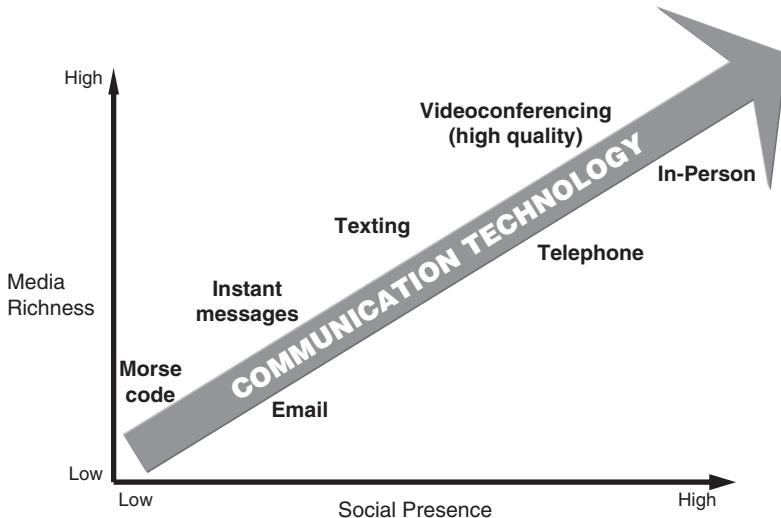


FIGURE 8.1 Communication technology, media richness, and social presence.

of tapping. Email, which one might think is similar to Morse Code, is actually very different because we cannot “hear” the tapping of the other person as we read their message. As we’ll see in the next chapter, sound is very important when trying to interpret meaning. And yet it’s a part of our human experience that basically disappears in most virtual communication exchange. Email is “silent”: we read it – we don’t hear it. Text uses a rolling ellipse “...” to mimic the feeling that someone is tapping a message in real-time. Text software is specifically designed to create a higher feeling of “presence” but it is still silent.

Email or text messaging is, of course, still the most widely used modes of communication and has some obvious advantages. It’s cheap, quick, and we can use it to convey information. For most collaboration within the virtual workforce, it’s the most frequently used method of communication.² But because email is low in richness and low in presence, it can create many problems.

Daniel Goleman recently wrote about his own experience with an email he received from someone he didn't know very well:

I had met her just once, at a meeting. We were having an email exchange about some crucial detail involving publishing rights, which I thought was being worked out well. Then she wrote 'It's difficult to have this conversation by email. I sound strident and you sound exasperated.' "³

Goleman is no slouch when it comes to understanding communication and the emotions that it can arouse. After all, he literally wrote the book on emotional intelligence.⁴ But even Goleman was puzzled by the email. He was able to clear things up with a phone call – a richer medium that allows more social presence. Goleman notes that email, because it's devoid of the paralinguistic cues that can convey emotion, carries the risk that the message can be misinterpreted. One reason that emails are misinterpreted is because we overestimate our ability to convey meaning in our email messages – without incorporating enough context to the receiver. We also overestimate our ability to interpret meaning from email without enough context coming through from the sender. This is called the egotistic bias. We tend to imagine that other people see and interpret things the same way that we do. This is particularly true when we're communicating via email and lack any social or visual cues to tell us otherwise.

If we think about interacting face-to-face, there are a lot of different ways that we express ourselves. We use the spoken word – how we say something can give a different meaning. A different tone, different emphasis, or pronunciation can dramatically change the meaning of the same word or sentence from sincere to sarcastic. We also use gestures, alter body position, change our facial expression, and observe the reaction and behavior of the receiver of our communication, which tends to make us adjust our own conveyance.

Herbert Clark and Susan Brennan conduct research on communication. They view communication in terms of what they call grounding: the process by which two people who are communicating achieve a shared sense of understanding as well as a shared sense of participation in the conversation. As they put it, grounding allows both the speaker and the listener to mutually believe that they've understood what the speaker meant. In face-to-face communication, there are six tools for grounding,⁵ and we've listed them here:

1. *Copresence*, which allows each party to be in the same surroundings and see what the other is looking at.
2. *Visibility*, which allows each party to see the other.
3. *Audibility*, which allows each party to hear timing of speech and intonation.
4. *Contemporality*, where each party receives an utterance just as it is produced.
5. *Simultaneity*, where both parties can send and receive messages at once.
6. *Sequentiality*, where turn taking cannot get out of sequence.

The notion of grounding is important because our most extensive communication technology, email and text have none of these characteristics, and yet they're the most important when it comes to meaningful communication. When we get an email, we can't know where the other person is. They might be in an office, at an airport, or on the golf course. We can't see them and we can't hear the tone of their voice or inflection of their speech. Are they angry, trying to be funny, or serious? We simply cannot know.

In addition, since email is asynchronous, we may get a reply back days after we send a message, thereby creating

FIGURE 8.2 Features of virtual communication modes.

Characteristic	Email	IM	Audio Conferencing	Video Conferencing	Face-to-Face
Copresence					✓
Visibility				✓	✓
Audibility			✓	✓	✓
Contemporality	✓	✓	✓	✓	✓
Simultaneity	✓	✓	✓	✓	✓
Sequentiality	✓	✓	✓	✓	✓
Reviewability	✓	✓			
Revisability	✓				

holes in the last three elements of grounding. Although instant messaging and texting allow something close to simultaneity, email doesn't. Finally, we can and often do get our messages out of sequence. I might schedule a meeting for 2:00 p.m. on Tuesday and then later read a message that tells me Karen can't make it at that time. Figure 8.2 shows the features of various types of virtual communication.

However, email has a couple of characteristics that face-to-face doesn't have: revisability and reviewability, which are characteristic of all written communication. Revisability is sender-specific. Before an email is sent, it can be edited, reworded, or otherwise carefully crafted. We can write a draft and then decide that we need to explain a point a bit more and add some detail to our message. This might be especially important if the message treads on a legal issue. Reviewability is reader-specific and is the ability to read over or review the message as often as we desire. Revisability and reviewability are positive features of email for the most part. We can be careful about what we say and how we say it before we send a message, and when we get a message we can read it or

reread it to make sure we understand important details, such as the time and place of a meeting. But these same positive attributes might lead to anger and resentment on the part of a receiver. A mildly insulting email might be perceived as highly unjustified because the receiver knows that the sender had time to reword the message, and the receiver can read the message over and over getting angrier each time. Email can escalate a conflict because of the lack or delay of feedback and social cues. The reviewable feature of email may produce an obsessive focus on the message, and the revisable feature can allow marshalling of information that can be perceived as overly aggressive.⁶ The harshness of the email from Cindy to Jane described in Figure 8.3 looks very different than the transcript of the face-to-face conversation. If we add nonverbal and other paralinguistic behavior, it's clear that what appears to be a withering criticism in the email is simply a minor misunderstanding. The email might seriously harm Jane and Cindy's relationship and increase the Virtual Distance between them. A face-to-face conversation might actually end up strengthening the relationship and decreasing Virtual Distance (see Figure 8.3).

Email is particularly bad at communicating subtleties like emotion. One survey found that employees had a need to express emotion with email but had a lot of trouble doing so.⁷ Another study described an experiment in which each participant was asked to send 10 emails to another study participant. The senders were instructed to make half of the emails serious and the other half sarcastic. The senders were highly confident that they could convey sarcasm, but when the receivers were asked to indicate which emails were serious and which were sarcastic, their accuracy was little better than 50% – in other words, they did no better than chance.⁸

FIGURE 8.3 Email versus face-to-face dialogue and interpretation.

The Email Version	Transcript of Face-To-Face Meeting
Cindy,	Jane: Hi, Cindy. There are a couple of things that I thought we should discuss.
We have to discuss your performance on the Kappa project. Here are just a few of the problems.	Cindy: Okay.
You were late to the last three meetings. Your last deliverable was also two days late.	Jane: I noticed that you couldn't make the last three meetings on time and was wondering if there is a problem.
When the customer tried to contact you last Thursday you were not in your office and so he called me.	Cindy: Well, my daughter has been sick and the babysitter hasn't been able to get there in time for me to make an early morning meeting. Sorry about that.
Finally, you still haven't sent the report that you promised.	Jane: I'm sorry to hear about your daughter. I hope it's not serious.
All of these things are causing me some concern and I need to speak with you tomorrow.	Cindy: No, just the flu. I think she'll be back to school next week.
Please call me.	Jane: That's good to hear. I had the same problem last year when my kids were sick. I also wanted to ask about the last deliverable.
Jane	Cindy: Well, Fred has asked me for some help with his problem, and looking at the overall schedule, I felt helping him took priority. I should have let you know that it would be a little late.
	Jane: Yeah, that would have helped, but I'm glad you were able to help Fred. I didn't realize that you were involved.
	Cindy: Yeah. Fred and I really work well together.

(Continued)

FIGURE 8.3 (Continued)

The Email Version	Transcript of Face-To-Face Meeting
	<p>Jane: Fred's a good guy.</p> <p>Cindy: Yeah. He's helped me out a few times, too.</p> <p>Jane: I wanted to let you know that I got a call from the customer yesterday and he was looking for you.</p> <p>Cindy: Yeah, I know. I was over working with Fred and I picked up the call around 4. I spoke to him and everything is cool.</p> <p>Jane: Good. The last thing I wanted to mention is the report.</p> <p>Cindy: Oh, yeah. The report. It's just about finished. I have been waiting for input from Ed and Susan. I can send you the draft, but you know the pressure that they've been under, and I did not think a day or two would matter.</p> <p>Jane: I understand, but at the same time try to let me know ahead of time.</p> <p>Cindy: Okay.</p>

The receivers had no idea whether an email was intended to be serious or sarcastic.

Why do we have so much trouble getting people to understand what we mean with email? Remember the egocentric bias mentioned earlier – the one that contributes to many misunderstandings? Well, it's the same issue in the case of sarcasm or any “intent”-oriented message. The judgments we make when communicating with other people are inherently self-centered. When people are asked to imagine the perspective, thoughts, or feelings of someone else, a growing body of evidence suggests that they'll use themselves as an anchor or reference point.

It's completely unconscious, but nonetheless, we assume that everyone else sees things the same way we do. What's humorous or sarcastic to me may be interpreted as serious or insulting to you. When we interact in person, the feedback from facial expressions (e.g. a furrowed brow) can tell us if we've missed the mark or that the other person doesn't "get it." When we send an email, we may never get feedback. If we do, it may only come after some damage has already been done. Even positive emails can be misinterpreted. Research shows that people like to get good news live and "in the flesh." Giving good news with email can be interpreted as less caring and sensitive. In effect, the joy or satisfaction one might get from hearing good news is muted when delivered electronically and is perceived as a lack of consideration because of the way in which it was delivered.

Another issue that can create problems with email is the lack of agreed-upon norms, or standards of behavior, among those involved. Can you answer the following questions?

- Are you expected to return emails after working hours or on the weekend?
- When is it appropriate to copy or not copy someone on an email?
- What language is or is not appropriate?
- What is the best way to express different emotions?

There are many other examples for which there's no clear normative behavior. Norms are an important part of culture, and cultures can differ by organization as well as by nation. A good example was related to us by an anthropologist who studies virtual behavior. She happened to be in a café in Australia that had free wifi. Like most of us who carry laptops around, she sat down and then

proceeded to log in to her email and began answering messages. Not for long, though. A burly Aussie quickly came by and began yelling at her in colorful language about answering her email in the café. Apparently, social norms in this part of Australia don't allow for work-related behavior in places where people go to relax. Who knew?

Perhaps the greatest problem with email is the sheer number of emails that we get every hour of every day. Like a river with no end, the emails keep flowing and flowing, threatening to drown us all. Just as we're writing this book, a movement is afoot to deem specific days "email free." But this feeling that we're underwater might be in fact a metaphor for our general inability to separate really important messages from those that are less important or completely irrelevant to our work or lives. How many times are you cc'd on something you barely have an interest in? It takes time to read email and more time to respond. For some organizations, it's such a major problem that they've begun employing more technology to get a handle on emails. Some use artificial intelligence to interpret messages and decide whether they're important enough to read and answer. Back when we were writing the first edition of this book, Seriosity, a California start-up, used the novel idea of applying an economic model to email.⁹ Inspired by the virtual economies of online games like World of Warcraft, the software allowed users to attach virtual currency called "serios" to their email messages. Everyone started out with an equal number of serios and could signal an important email by attaching a higher number of serios. Receivers of email had an incentive to read the emails with more serios because they could accumulate serios for their own use. Seemed like a good idea but, alas, it never caught on. One reason might be that we now have many different tools and methods for managing our email. Whether we use them or not is often problematic, however.

AUDIO CONFERENCING

Some of us might remember that star-shaped device that sat on the conference table, the Polycom Sound Station. What you may not know is that the Polycom was actually developed because of frustration with the poor quality of videoconferencing in the late 1980s. The developers, Brian Hinman and Jeff Rodman, realized that the benefit of videoconferencing was mostly in the audio, and the poor quality of the video was more distracting than helpful.¹⁰ The Polycom was full duplex, meaning that more than one person could speak at the same time. This quality allows an easier interchange and a closer approximation to a face-to-face interaction. People could exchange social pleasantries, use humor, and give immediate feedback. Now we can set up teleconferences from our smartphone or office phone.

Teleconferencing can work well when Virtual Distance is low. When it's high, however, it can present some problems. A Chinese employee on a multinational team sums up the problem this way:¹¹

Sharing technical knowledge is not a very big problem for me. Since we are both doing the same thing, he [the US colleague] will understand me even if I am not using the correct grammar and sentence. But it is really difficult for me to make social conversation with them. I don't know how to make jokes with them. By the way, I am pretty good at it in Chinese. I don't know how to create a relaxed meeting environment. It makes the meeting very dry and boring, which indeed impacts our communication.

Although this person can discuss task details in terms of their technical aspects, it's unlikely that audio conferencing will decrease Virtual Distance between this employee and his distant counterparts. The kind of social conversation and humor that he refers to are what builds relationships and lowers Virtual Distance.

Another problem with audio conferencing is what can be called *absent presence*. Absent presence means that although a person may be on the phone, it doesn't mean that they're psychologically present. The problem of absent presence is exacerbated by Virtual Distance. The bigger the group, the less likely they'll be engaged. Participants, especially if they're alone and isolated, are more likely to be doing other things, like answering email and not paying attention to the discussion. The second problem is related to multitasking. For example, I can be on a conference call but because I have a deadline on another project, I am likely to be either working on it at the same time that I'm supposed to be listening, or I might have to respond to an instant message, or leave the room to take a call on my cell phone. The participants may not even know that I've left, particularly if the group is a large one. Some web-based systems try to mitigate this problem. They use an icon or a picture to show whether a person is present or absent – but let's face it, they might leave their icon up while they're doing something else.

VIDEOCONFERENCING

Videoconferencing has come a long way from the early systems produced by AT&T in the 1970s. We can now interact with video from our desktops or laptops and even our cell phones. Tom Sansone, CIO for Credit Suisse, commented about video interaction this way:¹²

You can see at my desk, desktop video. To me that has really improved my ability to manage over great distance. So I have direct reports that are in Asia and Europe, and, frankly, being able to see them on the screen and talk and see body language makes a huge difference in our communication and I also think in our ability to build our relationship versus just being on the phone.

Video is thought to be more media rich; it's claimed that it allows more social presence than just audio because we can see the facial expression and some nonverbal behavior of the other person. In addition, video can add the characteristic of visibility. Even lower-quality video systems allow us to see each other. However, as we discuss in the final chapter, on Soul-Based Leadership, we shouldn't assume that video is an ideal solution. In fact, we've always known that voice alone provides more than 80% of what we get in terms of cues via in-person interaction. And in many ways, video can be just as distorting as it is helpful.

However, some form of facial communication and feedback can sometimes give us more information around nonverbal cues that are in the line of sight of the camera.

We now have relatively inexpensive video conferencing tools that allow more copresence. We can see one another and everyone can see the same documents. These systems can make teleconferencing feel closer to reality. On the other hand we have to be wary that they distort people's images, and that can also have an unconscious negative impact if we're not careful.

But no matter how good the technology is, the same factors that we've discussed throughout this book still create Virtual Distance. Technology can exacerbate these problems. Teleconferences and videoconferences tend to be task-focused and are not designed to easily and informally allow for other kinds of conversations in which solid, enduring relationships are developed.

TECHNOLOGY AND VIRTUAL DISTANCE: SOME PRACTICAL IMPLICATIONS

We've discussed different ways that virtual workers communicate through the use of technology. Good communication is at the heart of all productive work. Without

effective communication, organizations struggle to get even the most basic, minimal performance out of the workforce. Communication also plays a critical role in other important aspects of work that we've discussed extensively in this book: trust, innovation, and leadership. All three are essential for the survival of any enterprise, and Virtual Distance poses some special challenges that require careful attention to technology selection and use.

The first practice we propose is to revisit whether communication among the virtual workforce is functioning as it should or whether there are problems that need to be solved. For example, at one of our high-tech clients, we found that while the company was eager to participate in online social networks to attract millennials, the interns already employed said overwhelmingly that social networking sites like the ones being considered were not something they would normally use voluntarily. We often run across this kind of paradox, where technological solutions are assumed to be the right choice when, in fact, they're not likely to work well.

One simple way to see whether there are problems with the use of communication technology is to ask each person to share his or her conception of the vision for any given project. Ask them what they believe to be the goals and objectives, methods, and processes that will be used to achieve the desired outcomes and also how the project goals relate to the broader strategic goals of the organization. You may be surprised to find that some, or the entire group, do not share your view. If communication technology is working as it was intended, to facilitate better collaboration, then the visions can be better shared. If communication technology is not helping to inspire or support collaboration, then the visions will be different, or, even worse, group members won't even know what the vision is. As we showed in Chapter 4, a vision that's clear and shared by all is enabled by low Virtual Distance.

Another important indicator of communication technology success can be seen when the group enjoys a shared mental model, which means that everyone has a common understanding of the vision, goals, or mission, and everyone knows what everyone else is supposed to do and when and how they're going to do it. Think of a highly effective basketball or soccer team. Everyone understands the game plan, what every player can do, and how they can support and enhance each other's performance.

A shared mental model also implies that everyone on the team is working with the same information about context. And as we discussed in Chapter 3, the lack of a shared context causes great difficulties with communications in virtual space. In addition, geographic and time-zone differences tend to create a reliance on asynchronous communication technologies, which can produce interactions that are ambiguous or equivocal. This can mean, too, that feedback loops will be elongated, often leading to delays.

Other questions to ask yourself as you evaluate technology in light of Virtual Distance are included in Figure 8.4.

In addition to these questions, there are also best practices we've developed that address management endeavors as they relate to trust, innovation, and leadership, given Virtual Distance and our technologically complex workplace. These are included here in Figure 8.5.

In summary, technology has become so pervasive since our last edition that many never question its use and its many unintended consequences to human health and well-being. One of the reasons we began to look into the questions that led us to Virtual Distance was to better understand how these mechanical tools led us to become a virtual workforce.

In this second edition though, we stress that this unquestioning belief that using more technological machines to improve productivity and human well-being is just not realistic. It's Virtual Distance – the disconnects

FIGURE 8.4 Questions for assessing technology selection.

Physical Distance	<i>Geographic Distance:</i> Does the software promote presence?	Geographic separation is certainly the most direct contributor to a lack of social presence. When group members need to be close but can't, the software should approximate face-to-face interaction as much as possible.
	<i>Temporal Distance:</i> Does the software allow smooth asynchronous communication?	Software should allow users to work together asynchronously as smoothly as possible and should also allow users to know when each group member will be available for meetings, phone calls, and instant messages. If the software can also account for some level of presence, like when someone's online, that's also positive.
	<i>Organizational Distance:</i> Does the software allow team members to develop a common identity?	Software can help reduce Organizational Distance by supporting features that can promote the development of a common identity. Virtual worlds are particularly well positioned to help with this problem by allowing users to create designs and group spaces that feel as though they belong to even the most temporary of teams.
Operational Distance	<i>Communication Distance:</i> Does the software allow users to express themselves in multiple ways?	Software that allows users to quickly add video and/or audio ad hoc from wherever they're located is likely to become highly advantageous. Even today, built-in webcams are already allowing people to beam themselves to others. Skype and other voice capabilities along with instant video should be added whenever possible.

FIGURE 8.4 (Continued)

Operational Distance (continued)	<i>Multi-Load:</i> Does the software help to minimize multitasking during conferences and meetings?	Software that helps facilitators check for engagement during meetings, like having the ability to poll participants, can help managers and other meeting leaders keep a high priority on the meeting. Some software automatically signals participants at certain junctures to ensure that they're paying attention.
	<i>Readiness Distance:</i> Is the software easy to learn and user-friendly, and does it require little technical support?	Complex software that requires a high degree of expertise can create Virtual Distance if team members focus on trying to cope with the software rather than attending to the work. Communication software especially should require little technical skill and support and should have a shallow learning curve.
Affinity Distance	<i>Cultural Distance:</i> Does the software include assessment features?	Software should allow Virtual Distance managers to occasionally be able to assess different communication styles and value systems. Intermittent surveys or artificial intelligence systems can check for and help to signal the need for discussions around differences between individuals with differing cultural backgrounds.

(Continued)

FIGURE 8.4 (Continued)

Affinity Distance <i>(continued)</i>	<p><i>Social Distance:</i> Does the software help to promote and recognize the contributions of each team member?</p>	<p>Software systems can't erase differences in social status. In fact, software often eliminates the possibility of fully realizing Social Distance issues, and that's one of its benefits in certain cases. What's important about software and Social Distance is that the system be flexible enough to allow everyone rights into the systems they need.</p>
	<p><i>Relationship Distance:</i> Does the software allow for social and personal exchanges?</p>	<p>At the heart of Relationship Distance is a lack of a shared social network. And as we've all come to learn, social networking is one of the main attractions of software these days. Companies can amplify the positive effects of social networking and help to minimize Relationship Distance by implementing internal social networking capabilities.</p>
	<p><i>Interdependence Distance:</i> Does the software promote the perception of interdependence?</p>	<p>Interdependence Distance occurs when individuals are not clear on how their work fits into the project as a whole. Graphics software should be employed to develop representations of work which clearly reflect interdependence among group members.</p>

FIGURE 8.5 Best practices for improving trust, innovation, and leadership effectiveness.

Practice/Tool	Trust	Innovation	Leadership
Developing project or organizational culture	Set expectations around norms and state values that reinforce integrity and create expectations that people will behave in a trustworthy and benevolent manner.	Establish group norms and values that stress openness, innovation, and collaborative solutions.	Develop a “super-culture” – one that leaves intact existing cultures and builds upon them. Stress empowerment and shared leadership.
Monitoring	Reward helping (organizational citizenship behavior). Monitor relationships and conflict through email threads, virtual meetings, and personal visits.	Set clear goals and timelines and monitor performance through shared leadership and shuttle diplomacy. Ask those involved to self-rate progress and success levels.	Periodically visit face-to-face to meet with team members and attachés. Monitor performance through shared workspaces, electronic communications, and email threads as well as periodic conversation.
Selection	Select individuals with requisite competencies, especially a high propensity to trust others.	Select individuals who are personally interested in the project (self-selected) and who are open to new experiences. Look for those who have high levels of self-motivation and a track record of successfully working in virtual innovation teams.	Select leaders with cross-cultural experience or interest and capacity to share power. Leaders should have established informal status among followers as a result of their contributions as well as their formal status in prior assignments.

(Continued)

FIGURE 8.5 (Continued)

Practice/Tool	Trust	Innovation	Leadership
Recognition	Recognize helping behaviors in virtual forums, through attachés and personal visits.	Recognize and reward new ideas, collaborative problem solving, and goal performance.	Leaders recognize team members by reporting successes and other contributions to a wide group, including a broad span of peers as well as senior management. Conduct virtual reward ceremonies. Report to functional manager on employee behavior.
Teleconferences	Use beginning of video/audio conferences for sharing of personal information and relationship-building.	Focus on divergent and new ideas during some part of teleconference. If trust has been established, encourage productive dissent in order to surface additional ideas and approaches to innovation process.	Use teleconference to reinforce vision, celebrate successes, and recognize key individuals or subteams.
Project management software	Communicate planning, changes in plans, and resource interdependencies.	Include results of prototypes, test versions, etc.	Use to keep track of task performance with input from attachés.
Develop shared repositories	Encourage team members to share examples of collaborative efforts.	Idea generation, idea evaluation, posting of learnings, and tacit knowledge exchange.	Allow all team members to keep track of progress and see relationship to other tasks and project as a whole.
Team website	Include professional and personal background, expertise, and experience of all team members.	Community of practice information on seminars, books, webinars, etc.	Reinforce vision, recognition, and important news.

that arise unintentionally from too much reliance on communication technology – that matters most to business outcomes and human health. For these reasons, the last chapter, a new chapter that's replaced the chapter on Ambassadorial Leadership, focuses on a new way to *experience* ourselves as leaders: experiences that can enhance the experience of others, provide more meaning in a workplace that is producing a lot of meaninglessness, and contemplate a path forward that will be best for our future.

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Reimagining Innovation

Innovation can include everything from coming up with great new products to new ways of solving business problems. However, as we define it, innovation is what allows companies to remain vital and to grow. But what are the implications for innovation when it comes to working virtually?

Recall from Chapter 4, among those who scored high on Virtual Distance, only 30% reported high levels of innovative behavior. However among those that scored low on Virtual Distance, 77% reported high levels of innovative behavior. That's a 157% difference!

Since innovation is one of the key outcomes for any organization, we decided to dedicate a chapter to the topic. Here we discuss some of the key issues surrounding innovation and how virtual relationships can be further harnessed not only to keep new ideas flowing, but to translate those ideas into reality and reimagine innovation in the global enterprise.

BRAINWAVES AND ARTISTIC PERFORMANCE

A few years ago, at the Royal College of Music in London, one might have seen young musicians lying restfully

listening to headphones. Not so unusual, you might think, except what they were listening to was the sound of their own brains. Our brains are constantly producing electrical signals in the form of wave patterns that can be captured by an electroencephalogram (EEG). The patterns vary as our brains become more or less alert or relaxed. High frequencies occur when we are excited or agitated and low frequencies occur when we are relaxed. Students connected to an EEG can learn how to control the frequency of their brainwaves through audio feedback. The goal is to enter a theta wave state – a state between sleep and wakefulness. The theta state is when a lot of ideas come to us, where our minds are more open and we make connections that our alert brain would filter out. John Gruzelier, a neuropsychologist, hypothesized that such training could improve creative musical performance. He ran a tightly controlled experiment in which half the students underwent the neural feedback program and the other half did not. Their musical performance was then evaluated by experts who did not know which students underwent the treatment. The results were startling. The students who learned to control their theta waves improved a full grade, but there was no change in the control group.¹ Interviews with students who participated in the experiment revealed that one of the reasons performance improved was their enhanced creativity in interpreting and playing. Gruzelier and his colleagues extended their research with dancers and singers, using the same technology.² Results showed significant increases in several areas of performance where imagination and creativity were required. Participants also reported an increase in “flow,” i.e. being in the zone where everything comes together effortlessly and one is completely immersed in the activity at hand.³

Theta waves may be good for creativity but when we’re awake our brain produces different kinds of waves. When we’re concentrating on a task – evaluating ideas, for example – we produce beta waves. This research suggests

that in order to be creative, we need to be able to move back and forth between this relaxed, idea generation state and the more alert, evaluative stage. We have all had the experience of concentrating on a problem and getting nowhere and then when we are showering, exercising, or doing some unrelated activity, the breakthrough idea comes to us. A recent study with professional writers and theoretical physicists suggests that the best “aha” moments come when we are relaxed and not thinking about the problem.⁴

BRAINSTORMING CREATIVITY

The cognitive science on brain training is in its early stages but these findings agree with the research on creativity and innovation. The idea generation phase, researchers agree, should be clearly separated from the idea evaluation phase. Remove the apprehension about being criticized from idea generation and let the ideas flow freely so that as many ideas as possible can be generated. Brainstorming is an approach that follows this principle. Brainstorming sessions involve having a group generate as many ideas as possible. The ideas are not evaluated but can be built upon or used to trigger other ideas. Brainstorming seemed like a great idea when it was introduced in the 1950s, but researchers studying brainstorming discovered something surprising: individuals working alone could produce more good ideas than a comparable number of individuals in a brainstorming group.

It may be a bit premature to start training everyone to control their brainwaves, but all of the research suggests two conclusions. First, initial idea generation can be done effectively by individuals or small teams, and second, Physical Distance may actually be an advantage, since individuals may be more relaxed working alone (closer to the theta wave state) and distance can help to lower the apprehension of criticism. Ideas alone are not enough to produce innovation, however.

CREATIVITY VS. INNOVATION

Creativity and innovation are not the same thing. An idea can be original and creative, but it might have no application. We define innovation as “imaginative activity that is fashioned to produce outcomes that are both original and have creative value.”⁵

It is no wonder that innovation is a frequent topic in both the popular press and in academic journals. Organizations rise and fall based on how innovative they are. What typically comes to mind when most people think of innovation are products like the iPod, or iPhone or Android. But innovation can take many forms, including services, processes, and even ways of structuring and managing organizations. The virtual, networked organization is such an example, as is the virtual team.

A lot of our own work is related to innovation in one way or another, and we think it’s safe to say that harnessing the power of Virtual Distance, reducing it where it’s high and applying the framework and its common language to unify the virtual workforce, is a good way to start.

INNOVATION AND GOLF BALLS

Based on our definition, in order for an idea to become a true innovation, it must have two characteristics: originality and utility. Ideas can develop in a lot of different ways, and in many cases the process is far from systematic. In fact, in the new product development arena, the generation of new ideas is often referred to as the “fuzzy front end” because it is not really clear how it occurs or what the best process is. Idea generation has been referred to as experimental and often chaotic,⁶ which might explain how a DuPont chemist ended up being named as one of golf’s 35 most influential

people by *Golf Digest*. In the early 1960s, Richard Rees was doing laboratory research on polymers and unexpectedly discovered an unusual gel. It was as clear as glass and unusually tough and resilient. Though the applications were not apparent at the time, the substance, trademarked as Surlyn, eventually became the standard coating for golf balls. If you don't play golf, you have encountered Surlyn as the clear packaging wrap for CDs, toys, electronic equipment, and many other products. It took a lot more than an accidental discovery to make Surlyn a commercially successful innovation. In fact, DuPont almost gave up on it several times. But other people at DuPont were able to develop the material for different product applications, and still other people were able to translate those applications into commercial viability.

The Surlyn example occurred well before the internet, of course, but it illustrates the two broad categories of innovation activity: exploration and exploitation. Rees's discovery is a good example of the exploration phase of innovation. Finding markets for Surlyn is an example of exploitation. The exploitation of Surlyn was accomplished through the social networks of people in research and development (R&D) and marketing who were able to make the right connections. In a virtual world, it is this social networking aspect of innovation that has to be carefully managed.

SOCIAL NETWORKS AND TACIT KNOWLEDGE

Where do new ideas come from? Some, like Surlyn, are accidental and some come from ideas generated by individuals. But many others arise collaboratively from the interactions and exchanges that we have with people in our

social networks. Imagine that you are an engineer working on a difficult problem and you are stuck. You wander down the hall (not too far, as we have learned from Allen's research on distance) and talk to Jill about the problem. Jill doesn't have the answer but she knows someone else who might be able to help – a colleague named Udo, whom she met at a conference in Germany. You email Udo and set up a conference call, and after listening to your problem, he is able to provide an idea of how the problem might be solved by referring you to an article that he just read. This scenario is a common one. Innovations do not occur in a vacuum and usually involve input from more than one or two people. Social network analysts would refer to Jill as a close tie and to Udo as an indirect tie. Also, Jill is a boundary spanner because she spans the boundary between your organization and Udo's (see Figure 9.1). In our own research, we found that innovation in projects was strongly related to having indirect or weak ties through different members of the team represented by low Relationship Distance. Social network researchers have found that it is the indirect or weak ties that provide new information. The people with whom you have close ties generally know

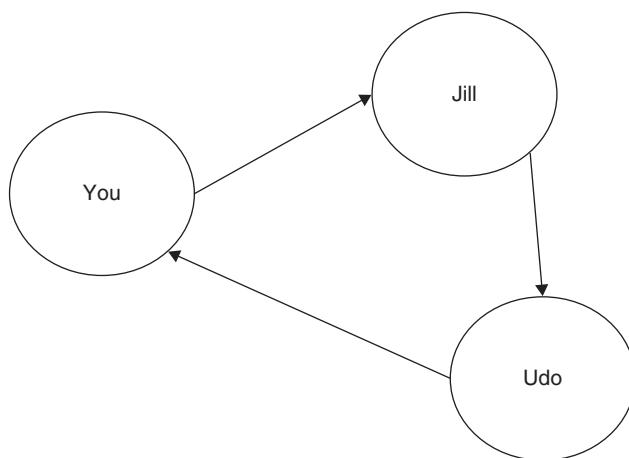


FIGURE 9.1 Social networks and innovation.

pretty much everything that you know, but the weak ties – people you know indirectly through someone else or know only casually – are likely to have different information. This different information is often the key that enables you to solve a problem or come up with a new approach. In the case of Udo's tip, the information took the form of explicit knowledge – knowledge that is written or archived and can be accessed by anyone. The internet works pretty well for explicit knowledge; in fact, it has opened up a huge repository of information that is accessible to anyone, assuming they know where to look. Electronic libraries, internet search engines like Google, list serves, and many other tools are readily available and getting better all the time.

Virtual Distance is less of a problem when the need is to share explicit knowledge. But there is another kind of knowledge called tacit knowledge. Tacit knowledge is difficult to define but it might be thought of as “know-how.” It’s what people know that has not been formally expressed or written down. Tacit knowledge can be critical for making breakthroughs in innovation since it represents something that is not generally known to most people. Because it is exchanged person to person, Virtual Distance can play a big role in the exchange of tacit knowledge. A good example is in the field of laser technology. In the late 1990s, scientists in the United States and the United Kingdom were working on improving laser devices by using sapphire crystals. A major impediment to the use of sapphire in lasers was the difficulty of measuring its quality, or Qfactor, a critical property for laser devices. A team working in Glasgow had great difficulty in solving this problem, but it turned out that Russian scientists claimed to have solved the problem twenty years earlier.

It is no surprise that the UK scientists’ trust in the Russian claim (and the Russian scientists) was low. Physical Distance and Affinity Distance were particularly high between the two groups. This all changed when one of

the Russian scientists was invited to Glasgow and was able to share some of the tacit knowledge that he had with the UK group. The visit helped to reduce Virtual Distance. Physical Distance was eliminated and relationships were developed, which reduced Affinity Distance. This allowed trust to increase and the tacit knowledge needed to advance the technology was transferred.⁷

The laser story is another example of the importance of weak ties. Bringing together people who have weak ties has worked in many other contexts because it is more likely that new ideas will be exchanged. The research on teams shows that diversity, particularly functional diversity, results in more innovation. Getting people together from different disciplines leads to more breakthrough ideas.⁸ For example, Xerox Corporation's Palo Alto Research Center brought together a widely diverse group of natural, social, and computer scientists which led to major innovations in personal computing. At the anecdotal level, a major pharmaceutical company, for economic reasons, deviated from its practice of locating scientists from different disciplines in different buildings. They were forced to house scientists from chemistry, biology, and other sciences in a single building in Montreal. The location in Montreal made possible multi-disciplinary interchanges and allowed different perspectives and ideas to flow, resulting in the Montreal facility's becoming the most productive R&D lab in the company.

However, as we've emphasized many times, we know that putting people together in the same location doesn't necessarily reduce Virtual Distance or improve innovation. Consider the case of WeWork.

CASE STUDY: WEWORK AND THE MYTH OF CLOSE PROXIMITY

The company WeWork, once touted as the ultimate future of work space design failed in its IPO in 2019 and has lost billions of dollars in market valuation ever since. Considered a

significant corporate calamity in terms of financial loss and an unsuccessful business model, it's an example of how Virtual Distance can be high when people are sitting right next to each other.

Despite having free coffee flowing all day, trays overflowing with snacks of all kinds and different kinds of open seating plans, people's innovative behaviors and productivity can suffer and even their well-being can be compromised in open office plans.

An article published on LinkedIn summarized some of the research in this area.⁹ People who moved from cubicles to open offices spent:

- 70% less time in face-to-face interactions in favor of online channels
- 63% more time on email
- 75% more time spent on instant messaging
- Worker well-being dropped 32% and productivity decreased by 15%
- Workers in two-person offices took 50% more sick leave than those in single offices
- Workers in fully open offices took absences an average of 62% more often
- People in noisy environments attempted to solve fewer puzzles than they had after working in a quiet environment, becoming less motivated and less creative

Despite these findings, many companies continue to build out open office spaces for many reasons, some of which are linked to lower costs and a misleading ideal that if a space is aesthetically pleasing, people will automatically share more ideas and collaborate more effectively. In some cases, this is true, but only when Virtual Distance is low. As the WeWork case and research demonstrate, close physical proximity is neither necessary nor sufficient to create or sustain low Virtual Distance. In fact, as the data show, it can often have the opposite effect.



VIRTUAL DISTANCE AND INNOVATION

We've discussed some of the ways that innovative ideas can be developed, but taking those ideas and creating commercial value involves a different set of activities. In some cases, the cycle time for an innovation to achieve its commercial value can be quite long. Fiber-optic cable is an example of a technology that was available for many years before it was implemented in the market. The cycle time for many other innovations is quite short. Incremental improvements, in particular, can be done in a fairly short time. The iPhone, for example, has been able to maintain market dominance through a series of fairly short-cycle incremental innovations. Regardless of the cycle time, though, the activities involved in developing an innovation (i.e. creating commercial value) are similar. The two most important stages of innovation are what's called "The Front End," and the "Building Stage," or "New Product Development."

THE FRONT END

The front end of innovation is where the ideas for new products or services are generated. The ideas may simply involve identifying new opportunities to be exploited, identifying new ways in which existing products can be improved, or coming up with completely new ideas that can lead to breakthrough developments. Two important activities in the front end include brainstorming and collaborative idea generation, both of which can be influenced by Virtual Distance.

Brainstorming

In general, Virtual Distance is less of a problem for brainstorming. Study after study shows that the number of ideas produced by individuals working alone will outpace

the number produced by the same individuals in a team. In some cases, individuals have been shown to generate twice as many ideas as a comparable number of people in a team. There are a couple of reasons why solo performers do better. One is the apprehension that people might feel about expressing their ideas in a group. Another is that only one person can talk at a time in a group, so in a given amount of time the number of ideas discussed by the group is fewer. Further support is offered by a study that looked at 65 million papers, patents, and software products from 1954 to 2014 and the number of people involved in each project. The results showed that individuals or small teams were much more likely to produce disruptive or radically new ideas than large teams.¹⁰

So, Physical Distance may actually be an advantage for some brainstorming-type idea generation. Being separated from other people allows the individual to be more relaxed, less apprehensive about negative feedback, and freer to express original ideas.

Collaborative Idea Generation

Most ideas, particularly as they mature, require collaboration. Operational Distance can be managed with the management strategies and tactics suggested in Chapter 6. Technology in the form of user-friendly platforms, which can make collaboration go smoothly even when people are geographically separate, are also helpful if Readiness Distance is minimized. Affinity Distance can be lowered through prior relationships, shared values, and in-person meetings, especially at this early stage. This will also raise the level of trust needed for successful collaboration as it moves into other stages. Shared values ensure that ideas are in sync with the organization's culture, and shared language is important to clearly communicate the ideas.

One area where Virtual Distance creates some challenges for the front end is in tacit knowledge exchange.

Physical Distance may create a barrier for direct tacit knowledge exchange. Importantly however, if Operational and Affinity Distance are relatively low, trust is high and people are likely to feel more free to share ideas openly.

The Building Stage

The building stage is where the new product or service is developed and is usually referred to as New Product Development (NPD). Research has shown that successful NPD includes several important factors:

- Creating a clear and consistent vision
- Effective collaboration
- Effective processes
- Senior management support
- Effective information exchange¹¹

As we shall see, Virtual Distance can influence each of these factors.

CLARITY OF VISION

Once an idea has been defined, creating a clear vision allows everyone on the team to have a common understanding of what is being developed, what needs to be done, and what they have to do to get there. The vision has to be communicated and periodically checked to make sure that all team members continue to have the same understanding. This allows a shared mental model to develop, which enables teams to function together seamlessly. The essential pieces of the vision should also be consistent. The NASA Orbital Boom Sensor System project that we discussed earlier had a clear and simple vision: “Develop a capability for inspecting

damage to the Orbiter Thermal Protection System while in orbit by the launch date.” Although details of the system changed over time, the essential vision remained unchanged and allowed the team to share a common mental model of what they were developing. Physical Distance was a challenge for communicating a clear and consistent vision from the outset. Getting people together early on, created excitement and enthusiasm. In-person meetings at the beginning of a project and at critical junctures are highly desirable. Operational Distance can be managed by sharing context about where others work and how they think about the work and priorities. This shapes a shared mental model among team members; enabling them to see problems in the same way and establish common meaning and interpretation. Affinity Distance can be managed by making visible the unseen commonalities between team members such as shared values, relationships, and interdependencies. In addition, Affinity Distance can also be nurtured by using the principles of Soul-Based Leadership, introduced in our next chapter.

EFFECTIVE COLLABORATION

Creating commercial value from an innovation is typically a multidisciplinary affair. It requires bringing together people with different backgrounds and different points of view. Teamwork also involves trust, shared values, and many of the other factors discussed extensively elsewhere in this book. Although Physical Distance can make effective teamwork challenging, establishing initial trust by meeting in person and applying the various Virtual Distance solutions discussed earlier, over time helps to build relationships needed for effective innovation in a virtual workplace. Operational Distance can be managed by continuously paying attention to providing enough context over multiple

interactions. This is the most effective way to ensure that people continue to see problems in the same way as ideas move through this stage. Affinity Distance should also be managed closely, per the strategies suggested in Chapter 6. For critical projects, team members with prior relationships can be selected to ensure higher levels of intra-team trust.

PROCESS

Process can mean a formal approach, such as the Stage Gate Process¹² or processes used in software development, or something much less formal. Regardless of the process used, it should have several characteristics. First, it should have multiple phases, and all of the phases should be understood by everyone on the team. Second, the standards or criteria for success at each stage should be clear and unequivocal. Third, the decisions as to what to do after each stage should also be clear. Do we proceed to the next phase? Recycle? Stop the project? Finally, everyone needs to have a common understanding of the process and follow it.

SENIOR MANAGEMENT INVOLVEMENT

Effective exploitation of innovation means that the leaders must pay attention and get involved. This doesn't mean interfering, but rather making sure that resources are available, barriers are removed, and the team and the team leader are empowered so that decisions can be made quickly and leadership can be shared. Senior management involvement should include face-to-face meetings with the entire project team and periodically with members in different geographic locations. Coupled with enough context and a mixed-mode use of technology that's reliable, team members can lower Operational Distance and ensure

that the team has resources and is empowered to make decisions. Finally, senior managers can use the principles of Soul-Based Leadership to lower Affinity Distance between themselves and the team.

INFORMATION EXCHANGE

Exchanging information in the exploitation phase means periodically reviewing what was done so that all team members know what everyone has done and plans to do. This allows a shared mental model to be maintained and keeps the team on track. Physical Distance is less of a barrier for exchanging explicit information in documents and archives, for example. For exchanging tacit information, leadership should use a combination of Virtual Distance strategies and tactics to best ensure that people develop closer bonds that often leads to sharing “know-how” and other tacit knowledge.

KEY TAKEAWAYS FROM REIMAGINING INNOVATION

- Neuroscience suggests that creativity is boosted when we are in a relaxed state and not focusing directly on a problem.
- Brainstorming research shows that individuals outperform groups when it comes to generating new ideas.
- The tacit knowledge exchanges critical to innovation are enhanced more by indirect or weak ties than by direct ties in our social networks.
- Virtual Distance influences the two major phases of innovation: the front end and the building stage.
- Physical Distance may actually be an advantage for some front-end activities. Research shows that

individuals or small groups are much more likely to produce breakthrough ideas than large teams.

- Virtual Distance influences each of the phases of new product development including clarity of vision, effective collaboration, process, senior management involvement, and information exchange.

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— 10 —

Soul-Based Leadership – An Introduction

In the first edition, we put forth a new leadership model to match up to an age in which Virtual Distance had become prevalent. We called it Ambassadorial Leadership because many of the characteristics of skilled Ambassadors ran parallel to tactics we suggested for reducing Virtual Distance.

Our next book focused solely on leadership and described what we called the Virtual Distance Leadership Model, showcasing three main leadership principles: Creating Context, Cultivating Community, and Co-Activating New Leaders. Both Ambassadorial Leadership and the Virtual Distance Leadership Model were based on our initial findings of Virtual Distance at that time. And those leadership models can still be helpful.

However, we've been fortunate in a rare way for researchers in that we've been able to see the evolution of Virtual Distance over a long period of time. That's allowed us to reflect on trend data and the many nuanced and startling ways in which Virtual Distance has become a major disruptor of traditional organizational behavior and leadership models. We've also been able to quantifiably confirm that Virtual Distance is growing stronger and we can predict it will create even more serious problems if left unresolved.

To do something about it however, requires a view of leadership that's based on the human experience. Understanding what mechanism might work best in this context was a question that remained elusive for many years.

Fortunately, during an unexpected helicopter ride, the answer came.

THE HELICOPTER STORY

I was on holiday in Antigua, a small island in the Caribbean Sea. Nearby is the tiny island of Monserrat, the main feature of which is a giant volcano. The volcano had violently exploded on July 18, 1995, spewing ash for miles and making much of the island itself uninhabitable. I found out there were helicopter tours available to see the still-seething Monserrat up close from the air. So I decided to take a ride.

I sat in the front seat of a four-person helicopter, right next to the pilot. As the small craft began to lift off, the pilot was talking to the air traffic controllers and I heard him say:

“Four souls on board.

Four souls on board.

Over.”

I couldn't help wondering why the pilot used the word “souls” to describe the people on the helicopter. He told me that in aviation, many types of aircraft carry people who are alive and some who are not alive. All of them are listed by name on the manifest. On takeoff, the air traffic controllers need to know how many people on board are alive. To distinguish those who are alive, they are counted as “souls.”

In that moment, the main issue for leaders suddenly became clear. The term “soul,” as defined in aviation as passengers who are “alive,” seemed like an exceptional way to attempt the restoration of a lost sense of vitality and meaningfulness to a workforce that often feels as though

they're automatons: disembodied parts of a fragmented, disorganized, and lifeless work where a glass screen is usually the only contextual portal provided.

WHY THE NEED FOR SOUL-BASED LEADERSHIP NOW?

Leadership is, by definition, based in large part on communications. The way the leader communicates and the effectiveness of those communications are arguably the single most important aspect of how leaders "show up" or are experienced by followers and other colleagues.

According to our close collaborator, the cognitive neuroscientist, Dr. Martin Westwell, as communications through digital devices have increased, the rules behind human interaction have completely changed. An extended interview about Virtual Distance and Neuroscience is presented in Appendix A.

The process by which we build, keep, and evolve relationships has been totally transformed. Therefore, we need a new understanding of leadership that rises above the fuzziness of virtual work so we can discern how best to live our lives and perform the work necessary to not only pay the bills but keep us meaningfully connected as human beings. How can we leverage new forms of communication while at the same time becoming aware of warning signs that might lead us into dangerous territory? There is a risk that as living, breathing people, we are getting lost in transmission.

THE NEUROSCIENCE OF SOUL-BASED LEADERSHIP

Soul-Based Leadership was so named because in today's virtual world of work we become invisible to one another, disappearing behind virtual curtains. As a result, we've

come to think about other people in the abstract. For example, we often use social network maps to understand relationship subtleties. However, this characterization of people performed repeatedly over a long period of time has unwanted, unintended consequences, especially when we rarely see each other “live.”

Fortunately, neuroscience provides a context to help us better understand the profound nature of what’s accidentally happened once we’ve habituated to a notion of people drawn as dots connected by thin lines in some intangible, unknowable network. From a brain-based perspective we’re able to see that this distorted view of relationships has led us to *behave as though* others are more like the dots instead of living, breathing human beings.

Neuroscientists (as well as marketers and propagandists) have known for quite some time that this process, whereby our behavior shifts as a result of the conflation between a concept and the language used to describe it, can have an intense impact on human beings. Once new phrases or word associations have been accepted as literal and valid reinterpretations of those concepts we tend to then treat people accordingly, thereby creating new behavioral norms based on a twisted vision of our personhood.¹

For example, the word “clockwork” actually means the inner workings of a mechanism. The definition came into use with the invention of mechanical clocks in the fourteenth century. Sayings like “he runs like clockwork,” as though a person could actually behave that way, have nevertheless come to mean a person is efficient and exacting, like a clock. This simile first appeared in the mid-1700s around the same time that pocket watches – ubiquitous, wearable, and mobile forms of mechanical clocks – became available.

In some cases, idioms like this are completely benign and have little impact on our thinking or behavior toward ourselves and others. For example, the phrases “over the

moon” or “head over heels” infer that a person really likes someone else. But we don’t normally start to think or behave as though we may be literally traveling over the moon or that our head being over our heels is somehow related.

But in other cases, like when someone is referred to as being like a clock, a computer, or an “information processor,” and that idea is reinforced every day, year after year, through multiple streams of advertising, pundits, and even scientists looking for research metaphors, this use of language can significantly change the way we frame ourselves in relation to others and the world around us. But it’s not just the language that can distort our worldview. It’s the experience with the metaphorical reference as described, versus direct experiences in the real world, that also present contortions in human understanding.

CASE IN POINT

One of the most standout examples of what can happen came on a sunny day in Norway when a friend of mine took me on a hike along the fjords. As we were walking, he told me that he had gotten his three-year old daughter an iPad. She loved using it, as most kids do.

But on one cold day while sitting in their kitchen, he noticed his daughter walking toward the sliding glass doors leading to the deck outside. On the outside of the glass was a spider. She walked up to where the spider was, set her fingertips down on the inside of the glass right over where the spider was sitting on the outside of the glass, and began to move her fingers in the same way she would when zooming in on things on the iPad, as though she could control the size of the spider that way by sliding her fingers along the glass in a similar fashion, as though the spider was not alive and had no will of its own.

My friend was horrified.

He quickly began to realize that she was beginning to develop a mind that contained a model of a world in which she could control things in the same way she controlled images on a screen. “How could this have happened?” he exclaimed while telling me this story.

I stood very still as he continued.

He hurried to the door and sat his daughter down and explained to her that the world did not work the way things worked on the iPad; that it was just a machine; that it was not alive in any way; that nothing inside of it was alive or real; nor did she have the same kind of control over real live things in the natural world as she did over the things in the iPad.

He got rid of the iPad and all other screen-based toys and devices except those he and his wife needed for work, which were always put away and not used when they were with their child. He made sure to take her out often, play with real things, teach her about what it really meant to be alive, to respect nature and all living things. Not too long afterward her state of mind changed and eventually she realized how silly it was to try and manipulate the real world in such a way. He was relieved.

But her worldview was corrected only because her father was awake, aware, and paying attention so that he could immediately change the nature of her experiences.



This is an example that represents the powerful ways in which our worldview can be shaped to make us think that we are more like the machines and less like human beings. By strategically using language and repeated screen-based experience in deliberately distorted ways, we can change the way people behave; as though the metaphors mixed with machine encounters reflect reality – but they don’t.

For example, sometimes we have to explicitly remind people that we don’t literally have “bits and bytes” floating in our head nor do we need them. Our brain is made up of organic tissue: neurons and an uncountable set of biological

materials, chemicals, and a living “soup” surrounding our cells. They all interact and exchange life with each other through a process called “dynamic reciprocity” and from those interactions and exchanges experience arises.

Humans experience – that’s what we do.

There are no hard drives and no silicon chips in our brains. In fact, we are in no way like an information processor, nor is an information processor in any way like a human being.

However, treating ourselves us as such unconsciously results in the subjugation of the human being, replacing what we know from our lived experience with inescapable metaphorical references. So another way to look at leadership is to use our position to help us “wake up” out of a manufactured and completely irrelevant view of human beings that’s being baked into our everyday work. Leaders are in a position to help others “unlearn” what we’ve come to unconsciously believe and direct our attention in such a way as to relearn from our lived experiences; that we’re made from different stuff; that we are amazing creatures easily capable of instantaneous imaginings that would literally blow up any supercomputer.

CASE IN POINT

Human beings effortlessly see and can notice the detail in tiny flowers, discern one blade of grass from another, and observe individual whiskers on the face of a lion. This fluidity of experience inspires us to imagine all sorts of things and we then create poetry, oil paintings, and music to share those experiences. These are “human artifacts” of our seamless experience with the world.

Compare that to the amount of technology needed to render movies that feature these same kinds of details in nature. For example, the first *Avatar* movie

“took the super computers [40,000 processors] processing up to 1.4 million tasks per day to render the movie, which consisted of processing 8 gigabytes of data per second running 24 hours for over a month. Often each of *Avatar*'s frames took several hours to render. And when you consider that is just one frame out of 24 for every second of film, you can imagine why the major processing power was needed.”²

In other words, to mimic human sight on just one dimension, the ability to see detail in the foreground, for which human beings expend no extra energy whatsoever, movies like *Avatar*, *King Kong*, and others can only be rendered by stringing together tens of thousands of computers with enormous amounts of disk space and memory that take up multiple football-sized amounts of space, suck up immeasurable amounts of electricity, and give off massive amounts of heat as the machines whir on, nonstop, for hundreds of days, simply so the fur on fantastic-looking creatures can be projected onto a screen. The byproducts of machine-generated detail like this are, in part, damaging the environment – ironically, the very thing James Cameron, *Avatar*'s creator, is fighting so hard to protect.



It's not impossible to turn our attention and bring forward a new way of leading. We just have to use accessible models of “livelihood.” And for that we need to start using the Soul-Based Leadership Model shown in Figure 10.1.

As we started to develop Soul-Based Leadership, we looked at academic research and reflected on our many years of collaboration with our neuroscience colleagues, clients, and other groups like families, doctors, local communities, and others. We looked into how human beings develop a sense that something or someone is alive, and in

Soul-Based Leadership

Aliveness ← → Theory of Mind

SUPPORT PRACTICES



FIGURE 10.1 The Soul-Based Leadership Model.

turn, how we develop a sense of caring and consideration for others.

We found two aspects to be most helpful:

1. The notion of “being alive,” or “aliveness,” and
2. A critical brain development milestone that we achieve when we’re very young, called Theory of Mind (ToM).

BEING ALIVE (ALIVENESS) VS. A LIVING THING

One of the ways children naturally distinguish something as being alive versus not alive is whether or not that thing is animated, or moves on its own. For example, children

often characterize other people and animals as being alive but, in general, they don't think of plants as being alive. One of the reasons is because other people and animals are animated and the plant is not.³ But the plant is alive.

Children are not alone in this respect. In fact, according to the Merriam-Webster Dictionary Online, the first definition of alive is as follows: "having life: not dead or inanimate."⁴ But this formal definition also excludes things like plants, which of course are alive.

As we looked into this further, we found that children will characterize a plant as a "living thing" more often than they think of it as being alive. This notion of a living thing is more detached – an object – whereas "aliveness" is more of a felt sense, a vibrant experience. It is this felt sense of our colleagues that we are trying to reestablish. In a virtual world people can become invisible or as projections of our own mind (see Chapter 3, Communication Distance), more than they are felt as being "alive." We unconsciously lose our experience of our colleagues' aliveness when others become invisible – *they also become inanimate*. So the question is how do we consciously create and sustain a sense of "aliveness" when people disappear, like in a magic trick, into a virtual vacuum once the screen is turned off?

We can "intellectualize" the notion that others are living things "out there." And the term "living things" can be helpful. As we've seen, when children are asked to use the context of living things, they usually put plants in that category. But that doesn't solve our problem because a living thing isn't necessarily as worthy of our attention as much as others that are alive. Therefore, to help the virtual workforce become more motivated to act on others' behalf because they, too, are vital, we use "aliveness" as the ground that opens to a path that leads us to a less abstract and more experience-based interaction with our teammates.

SOUL-BASED LEADERSHIP PRINCIPLE ONE

A Soul-Based Leader finds new ways to help team members tangibly experience each other as being alive even though they work virtually and may never meet in real life.

Some might say that video is the ideal technological solution (until holographs come along). But this is a mistake because by using video, we inadvertently take our authentic self and allow the screen or device to carry our liveliness for us. It happens unconsciously and ends up creating Virtual Distance problems.

So the first step in moving toward Soul-Based Leadership is to become aware that when we see someone on a screen, while the approximation of the other person can be useful, it's only a mechanically interpreted version of their image that's being broadcast through the mediating device, like a reflection.

But as the Nobel Laureate Czeslaw Milosz wrote at the end of his poem “Esse”:

... reflections of clouds and trees are not clouds and trees.

This is a key concept for Soul-Based Leaders to think about.

While it can be helpful to see each other via video, we don't actually exchange interpersonal experiences like we do when we're in person. This exchange and the liveliness that arises from such interactions influence how we treat one another.

Another way to think about mediated experience is through the eyes of people who suffer panic disorder. As the terrifying panic sets in, people's hearts start to race, their breathing gets very shallow, and they often describe an annihilating experience of their personhood, like they're seeing the world through a piece of glass which can then take on a very unreal quality.

We're not suggesting, of course, that working virtually is akin to having a panic attack, but simply that working via this mediation distorts our view in a way that changes the nature of our experience even though this change goes unnoticed.

In the absence of being physically present and paying attention to one another, we can certainly use the tools we have at hand. The key to avoiding ghostly experiences all day is to become consciously aware of what happens to us when we don't have in-person experiences. In other words, we need to realize that when we're not in person we need to actively put forth stronger signals that cue the other person to experience us as being alive. That means we have to animate ourselves and ask questions of others that result in a shared, felt, and meaningful experience. It does not automatically happen when we're talking via video, and that makes us act differently, *as though* the other disappears for a while.

CASE IN POINT

We talk with many investors. In one exchange, one of our potential investors joined a call via Zoom (a popular video conferencing platform), but he kept the video off. When we asked him if he wanted us to turn it on he said “no,” that he preferred to just listen to other people because looking at himself and others on video made him tired and he found it distracting as well.

He was fully aware of how it changed his experience; that it had both a physical and psychological effect on him. This “metacognitive insight,” which we’ll talk about later as being one of a few experience-based practices of Soul-Based Leaders, allowed him to “step away” from the situation, examine his response to video, and make a deliberate decision not to use that mode because it created distractions for him that got in the way of his thinking and decision-making.



SOUL-BASED LEADERSHIP PRINCIPLE TWO

Soul-Based Leaders use their metacognition to maximize experience in such a way as to see things objectively and minimize known distractions.

Another problematic aspect of working this way is that once the video is turned off we live on! . . . However, our counterparts have no other experience of us beyond the reflections they saw during the online meeting. Therefore, they don't experience us in any other way.

It's important that Soul-Based Leaders encourage people to tell stories about themselves and their lives in ways that elucidate a sense of a "life continued," emphasizing future plans and past experiences that brought them to their present moment. Storytelling deliberately focused on other experiences that color in a past and paint a picture of our future lives connected with our present – giving life to us beyond the screen.

SOUL-BASED LEADERSHIP PRINCIPLE THREE

Soul-Based Leaders help teach people how to tell stories about themselves that light up their pasts and potential futures. This universal oral tradition accentuates aliveness. Soul-Based Leaders also teach people how to listen for cues that people have a vital and full life once the meeting ends.

The sound of people talking, laughing, screaming, or in any other way making noise is significantly reduced when we work virtually. This key experience, hearing each other, has either moved mostly into the background or can be absent altogether in daily life. In fact, when we think about what we do all day, most of our work is read, not heard.

This is a big problem if we are to reconstitute our “humanhood” in virtual work.

Our own voices are crucial to human maturation as well as others’ experience of us. In fact, another one of our close colleagues, Dr. Faraneh Vargah-Khadem, the famed neuroscientist who led the team that discovered a gene for communications, says that hearing ourselves talk is actually one of the crucial ways we develop a sense of ourselves as living beings.⁵

When we’re infants, we make sounds that signal our caretakers that we need something. When we’re alone as infants we use our voice to make sounds that help us to “self-soothe,” a capability that becomes important to our emotional self-regulation for the rest of our lives. Babies inside their mothers’ wombs hear before they see. And as adults, we all know that talking out loud, even to ourselves, helps us think things through or process difficult experiences. Using our voices and hearing each other, not “reading” what others type into a machine, is one of the most fundamental ways we come “alive.”

CASE IN POINT

At one of our large governmental agency clients, we were talking to a senior leader who told us about how wonderful he thought video was in terms of keeping in touch with his daughter who lives far from him.

And of course it’s always nice to see loved ones’ faces when we can’t be near them.

However, he then shared a story about one time, after he’d hung up the video call with his daughter, he learned from his wife that his daughter was ill. He was surprised because he didn’t notice that when he saw her on video (remember, it’s just a transmission that can easily be distorted by camera angle and the fact that we appear as a talking head usually disembodied

from the rest of us, and in no way can reflect our relative size or proportion to other things because we're viewed through a limited lens).

We talked about how when we're hyper-focused on screens, often very small ones, we can unconsciously lend most of our attention to the strain of trying to focus on the screen itself, which is the only thing that's tangibly in front of us. This can obscure the subtleties of someone's pallor and their voice. As we talked about these subtle distortions he realized that if he had just been on the phone with her, he would have likely *heard* that she was ill in her voice.



Laughter is another important sound we make and hear. Humor often comes through the stories we tell. In fact, there have been studies that show that sarcasm should be avoided in email because it's largely misinterpreted by a reader – whether they know the person or not.⁶ And while we can "explain" a joke in email, it's the laughing out loud that actually adds vitality to our lives and, when shared, can become "contagious." Laughing out loud can also be very healing.

CASE IN POINT

Norman Cousins was a famed writer, teacher, and political advocate for peace. He was the managing editor of the *Saturday Review*, one of the most critically acclaimed literature journals ever published. He went on to become an adjunct professor at the University of California, Los Angeles, in the department of Psychiatry and Biobehavioral Sciences. He also worked with many political leaders to advocate for world peace. In fact, President John F. Kennedy called on Norman Cousins to become an informal negotiator, who went on to help avert nuclear disaster during the Cuban Missile Crisis.

In 1964, he was diagnosed with an autoimmune connective tissue disease and a most painful condition, ankylosing spondylitis, which effects the joints and spine. His doctor told him that only 1 in 500 people with this rare condition recovered. However, being a strong believer in the power of healing through positive emotions, he tried to figure a way to induce visceral laughter. He collected a set of films that made him laugh out loud, especially the Marx Brothers and episodes of *Candid Camera*. He said that every 10 minutes of a good belly laugh equated to 2 hours of pain-free sleep. He ultimately used laughter therapy, high doses of vitamin C, and healthy eating habits to beat the painful disease.



The key point for us all and especially Soul-Based Leaders is that typing “lol” into a 2” x 4” screen just doesn’t cut it in terms of experiences for ourselves and others as fully human and humorous creatures.

THOUGHT EXPERIMENT

Think about all the ways you know something’s wrong when someone gets on the phone. Reflect on an experience where sound played a key role in your experience. Then think about your daily work. Ask yourself how much you hear versus how much you read or write. What percentage of your time is sound-based where voices are experienced in the foreground?

Taking it a step further, think about how many times you laugh out loud as a virtual worker versus when/if you worked at a time before virtual work became the norm. How does laughing out loud in real life make you feel? How does it change your relationships in general? How does it impact virtual relationships in your context?



SOUL-BASED LEADERSHIP PRINCIPLE FOUR

Soul-Based Leaders use appropriate humor and laughter to create the shared experience of laughing out loud, with a shared sense of optimistic vitality.

Even if we are able to coax out a more “lively” connection among team members, when we work virtually we still need to also restore another key aspect of experience known as Theory of Mind.

WHAT IS THEORY OF MIND?

Theory of Mind (ToM) is experienced as knowledge and understanding that others have minds of their own, that they think differently than we do, that they feel differently than we do, and that they prefer different things than we do. It’s a tacit sensibility that develops when we’re very young, between the ages of three to five. We develop ToM mainly by watching the people closest to us when we are just toddlers. For example, when our mom surprises us or when someone visits the house and our dad gets annoyed because they weren’t expected. These natural, lived experiences begin to connect to other realizations and after only a few years, we begin to modify our self-centeredness depending on what we expect our parents or others will do, based on how they see the world, not us in particular.

CASE IN POINT

Researchers test young children by applying what we call the “candy test.” A researcher and a child sit at a table. On the table is a box of loose candy, like M&Ms or Junior Mints. The researcher shakes the box and asks the child, “What’s in

the box?" The child says, "Candy is in the box." Then in front of the child, the researcher spills out the candy, puts it away, and replaces it with small pebbles. They then shake the box and ask the child, "What's in the box?" The child, having seen the researcher spill out the candy and replace it, says, "Pebbles are in the box." The researcher says, "That's right." Then the researcher asks the child, "What if someone were to walk in right now, not knowing that we replaced the candy with pebbles and I shook the box and asked them what was in it. What would they say?"

If the child says that the person would say that candy is in the box, then that child has developed some level of theory of mind. The toddler knows that a person walking in on them couldn't know the candy has been replaced. If the toddler says that they'll think pebbles are in the box, that child has not yet developed ToM.



Why is ToM so important?

Because without ToM we can't learn empathy.

Without it, we can't put ourselves into someone else's shoes because doing so wouldn't matter since our point of view would seem the only point of view that's useful.

ToM can only be learned when we're directly exposed to disconfirming information: when something unexpected happens that directly contradicts what we thought to be true.

If a child begins with the worldview that he'll get something he wants by throwing a temper tantrum and the parent gives the child what he wants, that confirms his prediction that that's how the world works.

However, if a child begins with that same viewpoint but the parent doesn't give the child what they want, then this disconfirms her original belief and also helps her learn that people think differently than she does.

Another way children develop ToM is by listening to stories that have surprise endings and then making up their own. It's the same idea. Children who haven't developed ToM don't understand the notion or delight of surprise. Children developing ToM find surprises fun and interesting and feel they make stories "come alive." As they practice surprising their parents and other caretakers, a child develops ToM. And it is from this point of view that a child starts to realize that other people and animals, other creatures that are "alive," can get hurt and feel pain even when the child does not. The child also becomes aware of their ability to soothe and comfort others, even if nothing is wrong for them. And in this way, the child begins to learn how to be empathetic – growing out of ToM – and this also is important to self-regulation and perspective-taking.

So what's happening today in the virtual workplace that makes ToM so relevant?

What's happening is that we're not really paying attention to others while typing on our devices or roaming around in virtual hinterlands. Almost everything we are paying attention to is designed to satisfy our needs, our wants, and our desires. We are constantly surrounded by confirming information: validations that our point of view is at the center of all things. Since we can go online and find representations of worldviews that match our own quite easily, coupled with the fact that we don't naturally go out and look for disconfirming information, we are not required or exposed, through direct experience, to see that others think differently than we do, or feel differently than we do. In fact, in today's world we can create a lived experience where we share experiences only with people who think just like we do. ToM atrophies. This then can lead to a decline in learned and practiced empathy.

In a recent study,⁷ researchers found that CEOs and other senior leadership recognize that empathy is a key driver in the workplace. In fact 92% believe empathy is important to financial performance. However, just two years ago the researchers found that 57% of CEOs thought empathy in the workplace needed to change. In the current study that number grew to 72%. They understand that empathy is a mandate for sustainable business success in today's workplace; however, there's a large gap they call the "empathy gap" between what people intellectually believe (an attitude) and how they behave. The same researchers also found that employees feel their leaders' empathy toward them is dropping. In fact, 82% of employees said they'd consider leaving their job for a more empathetic organization and 78% said they would work longer hours for a more empathetic employer.

But leaders can't just turn on empathy like a water spigot; it has to start by a trigger that sets ToM in motion, and from there, leaders can become more mindful of demonstrating empathy. Distressingly, however, the study referenced above found that 58% of CEOs believe it's hard to demonstrate empathy, a 13-point increase from 2018. In other words, more CEOs are struggling to demonstrate empathy.

Clearly, leadership at this level is moving in the wrong direction.

But this worrisome statistic will continue to increase unless we purposefully reignite ToM as a lived experience in leadership behavior. One follows from the other. There is no way around this most human characteristic.

Importantly, in this journey back to a deliberate demonstration of consideration for others, Virtual Distance must at the same time, be reduced. As leaders become Soul-Based oriented by consciously reviving their ToM, they must at the same time ensure that when their empathetic signals are broadcast, they can be discerned clearly through the noise of Virtual Distance.

SOUL-BASED LEADERSHIP PRINCIPLE FIVE

Soul-Based Leaders are mindful of when they are getting lost in confirming information and losing touch with ToM.

SOUL-BASED LEADERSHIP PRINCIPLE 6

Soul-Based Leaders actively seek out disconfirming information and exercise how to see things from others' points of view, which then enables them to express empathy more often as they reduce Virtual Distance.

SOUL-BASED LEADERSHIP PRINCIPLE 7

Soul-Based Leaders use lived-experience practices that help team members regularly bear in mind that other people don't think or feel the way they do, restoring “group” ToM. Soul-Based Leaders help team members relearn to look for how others consider the world and work in a way that complements, instead of unconsciously puts aside, how others think and feel.

THE “PRACTICE” OF SOUL-BASED LEADERSHIP

To become a Soul-Based Leader, one has to practice. It's not enough to read a list of “tactics” or “characteristics” and then try to emulate what's on a written page, understanding leadership mainly from a cognitive point of view.

To be “soul-based” by the definition we've put forth here we have to “live” in practices that abide by the intention to restore aliveness in the workplace. We have to put

in place and then build upon a series of lived experiences that then become the scaffolding upon which we'll stand: our Soul-Based platform.

That's why in this book, we're suggesting contemplative exercises to regularly attend to in order to grow into a Soul-Based Leader. We suggest starting with three areas of deliberate and conscious practice:

- Metacognition
- Mindfulness
- Restoring Executive Function

These three areas are related, however one doesn't necessarily lead to another, especially at the starting point. So here are some "initial practices" to start reshaping our internal socio-emotional structures to help us learn to abide by Soul-Based Leadership.

Metacognition

Metacognition is the lived experience of becoming aware of one's own thinking and learning processes, of stepping away from one's self and reflecting on one's views. When we practice metacognition, we actually insert a kind of considerate distance between our "self" and the world. In this way we detach and then approach things more deliberately; informed by our lessons learned.

The Theater Practice Ideally, sit quietly somewhere in a place with as few distractions as possible. It's best to be in a non-built environment such as a park, a beach, or anywhere the natural world becomes the main backdrop. If this isn't possible or convenient, try to situate yourself in a way that you have a line of sight to a natural thing like a tree, or the sky – even if it's in a photograph nearby.

Take out a piece of paper or a notebook and a pen or pencil. Shut down all of your technology and put it somewhere out of sight. Turn off ringers, alarms, etc.

Imagine that you’re sitting in an empty theater. It could be a small movie theater or a theater with a stage. Imagine yourself sitting about halfway up the stands.

Call to mind either a work scenario or a family situation or an outing with friends – any situation that stands out – in which something happened that you can remember in as much detail as possible.

Write it down in your notebook and then sit quietly and project the situation onto the imagined movie screen or stage. See yourself in the “production” – as a player in it.

Run through the situation you’ve written about sitting still in your imagined “seat” and see it as a “show” of sorts.

From this vantage point, how would you characterize the situation and your role in it? How were you thinking about things? When someone said something, what was the “character” of your mind movements? Were they emotional, detached, extroverted, introverted, pensive? Just watch yourself in the scene. Think about what you learned from that situation. Did you learn anything? If so, what exactly? In what ways did your mind movements and/or learning inform you about the way you think and feel about other things?

The value of this practice is that it gives you a place to watch yourself from afar in a setting in which you would normally be watching something other than yourself.

Note your thoughts about your thinking and feeling after you've brought the projected story to a close. Notice how you feel afterward as compared to before you started. This is another way to learn more about yourself.

Note: This and the other sample practices may become uncomfortable for a number of reasons. If they do, don't "force" yourself to stay with it. We don't want to force anything that makes us feel unwell in some way. If you need to, stop the practice, take a walk, and maybe come back to it afterward. Unwell is different than "impatient." If you have trouble concentrating, let whatever comes to your mind play out on the stage instead of what you intended to focus on. But try to be patient. Be patient with yourself and the process as much as you can.

You may find this and other contemplative-based practices to be difficult because, in today's world, we don't always take time to think about how we think: think about how we feel; reflect. Building some stamina around this will be helpful as we learn more about ourselves.

The most important part is to simply notice how your mind is working and learn from what you notice.

At first, spend no more than a few minutes in this practice. As you continue to use this or other techniques, you're likely to find yourself being more reflective in general. Sometimes people like to regularly carry a notebook and a writing utensil. It's important for Soul-Based Leaders to write things down on real paper and manipulate your hands by writing. The experience is then held in a more human context and not a mechanical one.

Mindfulness

Mindfulness is different than metacognition. Mindfulness, as most people understand it, is more about "staying present." Our thoughts often drift in haphazard ways.

Mindfulness is helpful in establishing mental habits that make it easier to focus on the present moment. You'll find it's not easy to stay in the moment; we are natural "time travelers" and analyzers. We think about the past and the future. We use our thoughts to elaborate our recall or to help us prepare for times ahead that may or may not be anything like we imagine.

It's natural for us to do this – we are planners. However, to gain a better understanding about others and any given situation, we have to realign our thoughts to keep us in the experience of the present. We don't necessarily have to go to mediation classes or "prepare" to practice mindfulness. We can actually use almost anything to help us be more mindful wherever we are. Noticing a breeze or the sound of a train, or tires as they pass over pavement, are all ways to use the natural environment around us to help bring us back to the "now."

The Breathing Practice It's likely you've had some experience with this before. However, we suggest it here because we always have our breath; it's always with us and we don't have to expend any extra energy to access it in order for it to help us.

Either sit quietly by yourself, or, if you're among other people, just draw your attention to your breath. That's actually all you need to do as a basic practice. Just notice your breath. This practice helps us more fully experience one of the fundamental characteristics of being alive. And this by itself helps us to stay present.

To advance this practice, start to pay attention to how your breath feels as you inhale and exhale. You can help yourself become calmer and balanced by counting inhales and exhales; counting to four as you inhale and counting to four as you exhale. Doing this a few times in the beginning helps focus our attention even further and steady ourselves in the moment.

If you've ever tried mindfulness practices, you know that random thoughts will almost always interrupt you as you try and stay present. For some people, this is highly frustrating. But these thoughts are a part of us too. We have to acknowledge and respect them – but we don't have to join them. One way to do this is to use the Parade Practice.

In this practice, as you notice your breath, as thoughts come to you think about them as people marching in a parade. Imagine you're on a sidewalk watching the parade go by. You can wave to your thoughts respectfully without stepping off the sidewalk and marching in the parade.

It takes time to get used to doing this and feeling comfortable acknowledging and then letting go of thoughts that are rife with a tempting character. But that's why it's called a practice.

Some find it helpful to take out their notebooks and simply jot down a few brief notes or words describing how the practice shifts the way one feels. Reflecting on how we feel and what's learned from the experience of practice allows us to use our own life, as it is, as a living experiment without the need for any extra time at all. If we simply notice our life more fully in the moment and then reflect on it in some way we have made progress toward Soul-Based Leadership.

Restoring Executive Function

Executive function is a process we use as human beings to control our thinking and feeling in deliberate ways; it is the non-reactive mind at work as opposed to the more primal reactive mind, or “lizard brain.” There are plenty of books and learning materials on executive function. So we don't attempt an exhaustive definition or explanation of executive function here.

In general, executive function can be thought of as the traffic cop in our minds. It's the director; the Maestro that

stands in front of our thoughts and feelings and gestures them to “move” in one direction or another. Even though we’re all capable of using executive function, we often let it get lost in today’s world when we’re constantly being “led by the nose” by whatever our devices are programmed to encourage us to do. We often bypass executive function and revert to our reactive mind. We need to (1) stop, (2) bear things in mind, and then (3) select what to do next and implement that decision after careful consideration of different options. When fast thinking takes over, slow thinking can’t catch up. So we have to pay attention and restore executive function so that we can consider things more deliberately.

There are literally hundreds or thousands of ways to improve executive function. Some researchers list five dimensions of executive function, some list seven, and then there are the added interpretations and recommendations of the many people who help improve executive function in children and adults.

However, for our purposes here, we want to emphasize Soul-Based Leadership and pay most attention to those experiences that help us tune into Aliveness and deepen our Theory of Mind. So as a start we suggest a couple of simple practices as a way to help regularly restore and improve executive function.

The Listening and Taking Turns Practice Pick any conversation – any conversation at all.

Focus on staying present and being mindful that at the other end of the phone or across the table, there’s another living, breathing person who’s got a life of their own and who is sensitive to what we say and do. It’s also helpful to remember that they don’t “know” what we’re thinking. We need to use all of who we are to gesture or signal to them that we “hear” them and use “all of our words” to demonstrate that we’re being attentive.

As the conversation gets going, assert to yourself that you’re going to listen to the other person, be patient, and

don't interrupt them. Let them finish their sentences and give them cues that you're actively listening, for example nodding your head in a positive manner to signal that you're thinking about what they're saying.

As they take a pause and silently pass the baton to you for a reply or comment, try and start your reply by referencing something they've said. Use your executive function to modulate the pace and turn-taking aspects of the conversation.

The “No Reply” Email Practice We're all bombarded with email. And there are times when we receive emails that make us reactive in some way. If you're like most, you may find it easy to get drawn into your reaction and reply right away to an email that sets you off in some way.

Don't do it.

See this as an opportunity to use your executive function's self-regulating dimension.

When we're triggered by something someone wrote, as we've discussed, it can often create a contextual vacuum, and we use our reactive mind to deal with it because it's easier. We feel justified to type something back that's likely to be inappropriate and even may make us look foolish in retrospect.

By backing off on responding to an email that triggers a strong reaction, we restore and improve executive function in that moment. And over time, if we stop, bear things in mind, and use a bit of healthy distance in the form of some time to think about our options, we give our mental traffic cop the power it needs to help us avoid fast thinking.

In summary, we have developed some bad habits of leadership that don't work well if our goal is to reduce Virtual Distance and enliven our workforce. We've also habituated to a way of living in which we've unintentionally and subconsciously given ourselves some permission to

become more self-centered, less empathetic, and unaware of how we reinforce these tendencies. This is causing us all to be quite agitated as human beings and it's showing up in more health problems, higher levels of depression, and feelings of isolation and meanness.

Taking on the challenge of becoming a Soul-Based Leader helps get things moving in a more positive direction because it's based on a direct connection back to shared experience; one that helps us get back in touch with ourselves as well as those who depend on us for guidance. Soul-Based Leadership itself is an experience, not some detached or intellectualized notion of leadership that seems ideal under conditions that have largely disappeared.

REFLECTIONS

In this book we've shown that what we predicted in our first edition has come true. Virtual Distance has spread and intensified all over the world. The extent to which Virtual Distance impacts our original set of measured outcomes, along with those we added along the way, is also strengthening. It is, indeed, impacting work as well as our mental and physical health. Never have so many felt so isolated. And we've demonstrated through our metrics that Virtual Distance is, in large part, the cause.

If left uncontrolled, Virtual Distance will lead us toward even more problematic versions of what we've seen happen so far. But this does not have to be our future. We know how to reduce Virtual Distance, reverse its effects, and manage it over time.

As human beings who count on meaningfulness, consideration, and a felt sense of purposefulness to gift us with joy and happiness both in the workplace and in our day-to-day lives, we need different ways of thinking about leadership.

Soul-Based Leadership can be used for this purpose: to engender more authentic human experience, create a clearer perspective of what's important in our work, and, more consciously, with thoughtful deliberateness, overcome the effects of Virtual Distance on all of us.

NOTES

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— Appendix A —

Virtual Distance and Neuroscience: A Different Perspective

Since we started working on the Virtual Distance Model our work has come to the attention of a number of prominent researchers and thinkers. In some cases, this has led to dialogues, and in other cases, collaborations.

One of the closest collaborations we have is with Dr. Martin Westwell. Martin is the chief executive of the South Australian Certificate of Education, which sets educational standards and provides support for teachers and students who seek to attain those standards. Professor Westwell received his PhD from Churchill College, Cambridge University, in biological chemistry and led the Institute for the Future of the Mind at Oxford University. At Flinders University he led a multidisciplinary team of psychologists, cognitive scientists, education researchers, and teachers focused on improving innovation, teaching, and learning. In 2018, Professor Westwell was awarded the Gold Medal for “the most outstanding contribution to the study and practice of educational leadership in Australia”

by the Australian Council for Educational Leaders, which noted that his work “has influenced the way students in this century can and will learn.” From his perspective as a cognitive neuroscientist, researcher, and educational leader we wanted to get Professor Westwell’s perspective on how Virtual Distance is influencing how we work and learn together. Karen spoke with Professor Westwell and we have included the interview transcript.

Lojeski: Hi Martin. Thanks so much for taking the time to talk to us about your thoughts around neuroscience, Virtual Distance, education, and the workforce.

To begin, I thought the readers might like to know a bit more about how you got interested in Virtual Distance and its links to neuroscience almost fifteen years ago, before we even wrote the first edition of this book.

Westwell: So I remember at that time I was working at Oxford University. The university had just gotten over one hundred million dollars from one alumnus to add to what the university was doing around tackling some big problems, big challenges, things we could see coming over the horizon. We wanted to look even further outwards and see if we could have an impact in the community.

And you know, looking back now, that’s been fantastic and really shaped my career as an academic who could work with others to have an impact.

And so from this new funding, one of the schools that was developed was the Institute for the Future of the Mind where I led. We were charged to look at how technology was changing our minds.

And at the time, we started off looking at the very young and the very old (because during those years we see some of the most interesting things going on in the brain). And we wanted to find out what kinds of positive impacts or negative impacts it could have and how it might be changing things.

And so it was just a fantastic opportunity to take our thinking into the future; take the research that had already been going on and connect that to think about what sort of impact we could make in the community in terms of the future.

And so when we look at cognitive neuroscience we can see that there were some really interesting things about the way that people work – the way that people respond to each other.

But what we could also see at that time was that the rules of human interaction were changing. When you put technology in place, that changes many of the assumptions that we were making about the way that people interact; it all starts to change when you use technology.

Some of the modern ways in which we work starts to impact the way that people think. So that was of interest to us. One of the areas we were working on was around multitasking because with the use of technology we see lots of people “double screening” or trying to do one task but then they got a phone call or the phone was getting messages about one thing or another.

So that was some research that we were really interested in: work driven by the

availability of technology, changing the way that people think.

So really that's what got us into thinking about Virtual Distance and lead to the article we wrote with the organization you were leading at the time as research director. That was back in 2007, in the *New York Times*.

As we were thinking from a neuroscience point of view about how these rules of interaction were changing, we thought that you'd already been thinking about how these rules of interaction were changing, but from a business point of view, and so we came from completely different places.

But we landed at the same spot.

And so we just had this great natural complementarity in the way that we were thinking about problems we were grappling with and some of the kinds of things you were thinking about.

Lojeski: Yes – it's amazing that from those humble beginnings, we've been working together closely on a number of things since then.

At this point it might be interesting for the reader to know that we have never met Martin in person even though we have done lots of research together, written articles together, and collaborated closely. It's a great example of how Virtual Distance can be quite low between people who have never met when Operational and Affinity Distance are low.

So you mentioned that technology changes the rules of human interaction. We've written a paper together on this, have done a podcast the readers can go to, but can you say a bit more about that here?

Westwell: Sure. So usually when we're face-to-face, we have to take some cognitive and psychological shortcuts to understand other people.

We've got these ways of making things easy and to think about what other people are saying. And our emotions help us with that as well.

But when we put technology in place it changes the rules of human interaction. In the field of cognitive neuroscience, we can see that the role of human interaction is so powerful and often in ways that don't make sense. It's not about the "rational" interactions. Your rational thought and consciousness is a kind of bubble. It's supported by a thin layer of cells in your brain. It's a pretty thin veneer that's actually just a really fragile crust and really almost everything else is going on underneath.

It's all this other stuff that goes on behind it, like body language, the tone of someone's voice in which we speak to each other, the facial expressions. All of these things are really important in terms of making connections, really important in terms of communication.

And we lose those if we've not got face-to-face interaction, if we're not in the same room with the person and having that kind of face-to-face interaction.

I think there is a whole host of things that happen face-to-face that just can't happen electronically. We recognize that in lots of ways.

The subtle unconscious ways we influence each other's behavior when we're together are often much more profoundly impactful than

just having information that comes through electronically.

All of those things shape the way we think, the way we behave in all kinds of subtle and unconscious ways. And those face-to-face interactions give us the cues we use to take those natural cognitive shortcuts in the brain along with the help of our emotions.

Lojeski: So when we're mediated it sounds like we don't have the raw materials like facial expressions or body language that allow our natural cognitive processes to work properly. So what do we do instead?

Westwell: So when we're face-to-face we've got some of these psychological shortcuts, some ways of making things easy for us to understand each other when we communicate and our emotions help us with that.

Daniel Kahneman, in his bestselling book about thinking fast and thinking slow, makes this distinction between our automatic impulses, the easy ways of doing things, compared to thinking slow which might be a bit more of controlled thinking.

To get some perspective, when we think about how those different ways of thinking are processed in the brain, that thinking slow is processed in the frontal parts of the brain, the parts of the brain that are more different in humans than they are in any other animals, even the closest animals and the smartest animals like chimpanzees and dolphins.

They don't have these well-developed frontal parts of the brain that humans have that allow us to escape from the moment.

Animals are kind of trapped in the moment and responding to what's going on.

But humans can escape from that and through “stop-and-think” skills we can use these frontal parts of the brain that allow us to say, well, hang on a minute – something's not right. I want to do things differently.

So we get to do planning that other animals don't get to do. So the first part of it is the stop part. This inhibits the impulse to do something, to just react, and tells us instead, to just take a moment to reflect.

The second part of it is “bearing things in mind” – holding an idea in your head while you build on it, so you can think of other ideas and alternatives.

And then the third part is what's called cognitive flexibility, or being able to think of a different thing or making a different decision based on the stop-and-think parts, not just responding in a reactive way that we may be trained to do but instead, respond in a different way, a more flexible way.

So you put those three things together and what it allows us to do is to stop and think, bear in mind all the things that are going on and the goals that we want to achieve and those kinds of things, and then be flexible enough to find a route to respond to that.

And these three skills together are called executive functions: the brain's executive taking control of the thoughts and actions.

And what we're seeing is that when we're using things like technology to mediate our relationships and to mediate our communications, what we're doing is we're

using some of the shortcuts that we would naturally use in a face-to-face or some other traditional environment. And we're trying to use them in an environment where communication and relationships are being mediated by this technology.

We're isolated, but we're communicating.

So to fill in the gaps, our brains are almost kind of making up a story about the people that we're communicating with because they're not there with us. And so we get that kind of "talking to ourselves" as you've pointed out, or a "hall of mirrors" effect because we're looking for the cues and we're looking for the responses we would normally get face-to-face but all we're getting is our own cues and our own response being fed back to us.

And so we've got these two systems; the first and quickest is our fast thinking. I think it's fast thinking we're using when we use technology because it overrides everything, because the old rules of interaction, as we said earlier, just don't work for us anymore.

There's some new rules that apply to our interactions and our own relationship to that communication when we're using technology as a mediator.



"So I think what you've done in the Virtual Distance work is identified, in detail, how the rules of interaction change."



But if we don't know what those rules are we get trapped in the old way of working.

But we're in a new system so that starts to break down for us.

So I think what you've done in the Virtual Distance work is identified, in detail, how the rules of interaction change when you use technology; all the many different ways in which the rules of interaction change.

And now that you know how the rules have changed the thing about being human is you've got your executive functions that we just talked about. So now that you know, you can think in a different way, you can take control of your thoughts and actions.

So recognizing that I'm going to think in a particular way, for example, that when I'm using technology to mediate my relationship it's easier to do things I normally wouldn't do. Now that I know that, I can start to control my behavior; I can control my interactions and I can stop to at least ameliorate the effects, if not overcome the effects, by finding some other way of doing the communication or mediating the relationship.

Lojeski: Thanks Martin. I think it's very helpful to understand how our brain works in that way. I want to pick up on this idea you've just mentioned, of being isolated, and trying to apply old rules to this new situation.

As you've said, being isolated changes the rules of interaction and the way we respond using our executive function. But you are also looking at something else that's being impacted – the notion of belonging – or a lack of feeling like we “belong” in many ways that's created by technology-mediated communication. Can you tell us a bit more

about that and why it's so important for human well-being?

Westwell: So we see that when we put technology in place we see this changes the rules and the nature of our interactions.

And so that's been a kind of broad theme that we've seen in the workplace and in education.

Technology has been used more and more in education and we can see that coming through. But I think this idea of belonging has been perhaps one of the most undercooked concepts that we've been grappling with for a period of time.

In education for example, there's been some great work done by Andrew Meltzoff at the University of Washington showing that we spend all this money trying to get girls engaged with science, technology, engineering, and math, known together as STEM subjects, and computer science, and really, what we've been trying to do is aspirational work with them.

We've been trying to somehow feminize computer science that's been contrived, you know, a bit weak. And yet what's been shown is you can have incredible impact by instead working on the sense of belonging.

In his research, he set up a situation where girls were given the opportunity to take a senior class in computer science to see if they might have an interest in wanting to go on with that kind of study.

In one case the classroom was set up in what you could say was a "standard" way.

It had standard desks, there were cans of soda on the table, science fiction posters on the walls, and other things. And they took the class and then asked them (50% boys and 50% girls), if they wanted to carry on with computer science after the course was over.

And the boys pretty much said they did and the girls pretty much said they didn't.

And then they selected another cohort using exactly the same teachers and content and ratio of boys to girls but they changed the room setting.

So they put some soft furnishings in place, got rid of the soda cans and instead put in water bottles and also put more artistically attractive pictures on the walls, had the class and at the end asked who wants to carry on doing computer science. For the boys, the setting had no impact and they still wanted to study computer science. But when it came to the girls, now many of them wanted to also go into computer science.

So it was a really interesting point that he was making that you can just tweak things a little bit to really change the sense of belonging and that then changes a lot of things. And he asked the girls about their experiences and the difference between the two situations.

And they found that the girls in the second setting felt they could be in this field, see themselves in computer science, that they could be a part of it just by making a small change and help a particular cohort in this case, help young women to feel like they belong to this, that they could be part of this.

There's a caution here though. You can do it the other way, too, and you can make a pretty small change that excludes people to make them feel that they don't belong. But of course this is just one part of it but an important part when trying to shape educational programs for young people.

And of course as a leader now it's quite difficult to be a group champion and work with that group and bring them forward if they don't have a sense of belonging.

Another aspect of belonging is whether groups have a shared sense of identity and a shared sense of purpose. When that's not in place than it's pretty hard to be led.

And so we see this all the time.

There's another great piece of research where the researcher wants to understand how to help kids work together through a tricky task. The task was to have two children hit a touch pad on the desk in front of them at the exact same time. When they started, one child would hit it, then the other, and it didn't work out so much because they couldn't coordinate very well.

Then the researcher took some of the kids and had them swing together on a set of swings outside. They had them match their swing rhythms and phase with each other exactly. And then for some of the kids the researcher instructed them to swing out of sync with each other, having one child swing say every four seconds and the other every six seconds.

And then the researcher brought them back to their desks for the same task of hitting

a touch pad at the same time. The kids who were all mixed up when they were on the swings, took a while to hit the button together but the kids who were swinging in the same timing were much faster to get to the point where they could hit the buttons together.

In fact, the group of kids that synchronized their pattern on the swings even raised their hands at the same time before they hit the touch pad on the desk – a kind of signaling behavior that was completely in sync after the swings part of the experiment. In other words, they were much better at coordinating their signaling to one another.

And that seems crazy, right? That just by being in it together by swinging together, they were much better at working and signaling each other in that tricky task.

That's why these good experiments are important because it just seems crazy but it really brings home the point that if you feel like you're in this thing together, if you've got this coordination of emotions, if you've got this coordination of purpose, you are way more effective than if you have not got it.

And so again the sense of belonging, the sense of creating a shared purpose, we're seeing from the cognitive science point of view becomes really important.

Of course, we've kind of known that from all kinds of aspects of life for some time. If you've got the shared sense of purpose you can be very effective, like some of our ancient religious institutions, which have been doing this for ages by things like singing together,

and actively going through this ritual together really creates a strong sense of purpose.

Then you have to look at all the downstream effects. And what we see is that society is starting to fragment and lose a shared sense of purpose when we use technology as a mediator in our relationships. It's great to share information but that doesn't translate into a shared purpose when you use technology as a mediator in relationships.

And so now what we're seeing is this really powerful concept of belonging can unravel pretty quickly. It used to be that we'd feel like we'd be in it together, we'd be there together, we'd have all the body language, all these things like lifting your hand at the same time to indicate hitting the touchpad, all these signals, to indicate we should do these things together. And we would do it naturally.

Now I think the challenge for us is to think about how we make that part of our processes when we're not together, when we don't have these natural signals going back and forth, when we don't naturally develop a shared sense of purpose.

How do we do that intentionally? How do we build that? Because of course the use of things like technology and some of the ways in which we're working actually take that away.

This is especially a challenge in today's universities where so many students are enrolled in online learning. It's great for information transmission. But what we're finding is that a lot is lost, students are becoming depressed and disengaged. Because even if they show up for a workshop or a

practical class or something like that, because they're not regularly together, they don't know the people that are there.

There's no sense of a cohort, no sense of being in this thing together.

So even when you are face-to-face, the danger is that you are still feeling isolated because you've not had these shared experiences to develop purpose or a shared understanding.

So what happens is the isolation creates all kinds of strange things now.

Lojeski: Wow. That's really powerful. So what kinds of things start to happen as a result?

Westwell: This feeling of isolation then creates conflict and competition a bit more because "the other" is everyone else! This is an important point and a serious issue.

So it's me and everyone else.

It naturally creates that kind of unhealthy competition.

And then again there's all kinds of downstream effects of that when you turn what should be a shared purpose into a competition.

What happens then when we unpack this a little bit more and see other things when there's this lack of shared purpose?

You can see that we've got competition but that works against collaboration.

We can do tasks together but we don't necessarily get true cooperation.

The other thing I worry about is that we're seeing lots of anxiety in young people. And one of the ways in which that expresses itself is they might have knowledge, know-how

and skills, but they're not having experiences of true collaboration in terms of "we invest our time and are in it for each other."

Lojeski: So what happens to them as a result?

Westwell: Well, they're not very good at backing themselves with that knowledge and know-how. So for example, if they see a problem in an exam that's similar to the way they learned it, they think they're "good."

But if you ask them to take their knowledge and use it in a complex and unfamiliar or non-routine situation, what we're finding is that people often don't necessarily think they can do that. And I think that's partly a consequence of this lack of a sense of belonging and that we're in this thing together.

Because if you add it together with others, that changes whether you feel like you can have a go at this problem because you're in it together. Failure is something you can learn from when you're in something together.

But if you step out and you're isolated, the idea of failure is just crushing.

So then you wonder if you should even try and grapple with a complex and unfamiliar situation.

So I think that these downstream effects from an unraveling of belonging means that we have to intentionally put in the concept of belonging back into our educational and work processes because if not, it has all kinds of impacts.

Lojeski: What you're pointing out here has very important implications for our young generations. One of the things we found in

the data is that Millennials have the lowest levels of trust of any generation including the Silent Generation, the Baby Boomers, Gen X and Gen Y. Might this issue be impacting trust as well?

Westwell: I would suspect that there is much more of a kind of sense of worry among Millennials like we're also seeing in younger children. They're isolated. It seems there's no shared purpose. They don't trust themselves to do things in the same way because they might fail and that would be devastating. And it's this worry that becomes the cultural architecture around them.

So you expected to be working with others in this kind of honest, open, collaborative way and you're expecting that to be reciprocated.

As we move through Gen Xs and Ys and then into the Millennials I think one of the things that we've seen in a report from the Children's Foundation in the UK, is that a lot has changed in childhood and it's gotten a lot more complicated and that it's probably not quite as good as it was.

So when talking about the Millennials perhaps compared to Gen X we're seeing the results of all the challenges to childhood. Some challenges are around health. Some are around education and some are around cognitive development as a result.

But what's emphasized in the foreword to the report is that it basically comes down to what they call "excessive individualism."

Lojeski: It sounds straightforward enough but can you say more about this?

Westwell: So it's a real sense of not just fragmentation of society but fragmented down to such a granular level that we're excessively focused on the individual.

Of course we work hard with our institutions, with schools to make kids feel like they belong. We also work hard with businesses or even industries to work to create a sense of belonging.

We work hard on that, even with our national senses of belonging.

You know what it is to belong to this country and this nation of people with a shared purpose, shared expectations.

So we've got those things a little bit but it's become harder and harder to hold those things together, as you've got this separation.

So when you've got that, I think that point of trust really becomes a big problem. And you can see that really coming forward because if you're not feeling the sense of belonging it is hard to trust other people.

And where we see that in particular is when there are particular challenges like shared goals.

Lojeski: So it seems like a domino effect. What then happens to shared goals?

Westwell: For example, in one study they looked at a whole bunch of things that are related to shared goals in education and even things like group weight loss programs like Weight Watchers.

So you know, if I go to Weight Watchers for example, the point is I'm going to be there with a whole bunch of other people. We've got, well, we've got a shared goal right?

So we're going to all be kind of working on this together.

That's incredibly powerful that we're all working on these things together. And I don't really feel like setting you up and I'll be letting the others down if I don't show up.

But the point being made in the research is that when things get tough and the goal is getting closer, the feeling of being in it together starts to now turn into competition.

Because when we start out together it's easy because we're miles away from the goal. So we can be comfortable in feeling like we're all in this together. C'mon let's go. Let's communicate with each other. Love and trust that we're in this together.

But when you get close to the goal the danger is that that stops, becomes fragmented, and what you get is more competition. And what you find is that some of our highest performing students, employees, whoever they are, if they see anything in terms of the competition they start to post online, as if they see themselves as being better than everybody else.

And we have to then ask, is that because the main shortcut we use now is competition, instead of collaboration, because of everything that's happening?

And so now this could influence the emotional drivers and the psychological shortcut. You say, well, you're ahead of everybody else so that's all right.

So you get this coasting with top performers instead of them having a personal goal and stretching towards that personal goal,

because the default emotion and psychological shortcut is to be driven by the competition.

And so again I think that's part of this lack of belonging, this lack of trust. And we've seen that, I think we've seen that change over time and the world's gotten more complex as well.

And so we're driven, I think, more now than we've ever been in education by actually achieving a "thing" rather than going through the process of learning and education in terms of what it used to look like, as long as you go through the process that was OK and we could do that together.

But now when you're looking for a particular goal, getting to that goal will yield these negative impacts of creating excessive individualism, more competition.

And so we have this issue that impacts on trust, on collaboration, and on those signals like the kids were doing when they were in the swing sets – those signals that they were sending about a notion that "I'm in this with you."

Lojeski: So given all that we've talked about I want to take advantage of your unique vantage point around neuroscience, education, and work and ask about your thoughts on what's next.

CREATING FIRST CLASS HUMANS INSTEAD OF SECOND CLASS ROBOTS

Westwell: So one of the big narratives in education, one of the great challenges that lots of people are

trying to grapple with, is the changing nature of technology.

So at first, we had this technology and that made a lot of information available. Right.

And then we had technology that was what we called kind of “social.” But that starts to get weird because it starts to interfere with some of the things that have changed the nature of our relationships.

It has a coercive impact that we started to see and now have to start to think about. And now with artificial intelligence that’s going to change the nature of work and a host of other related issues, to the changing nature of education.

But what is it that will prepare young people for the world’s continuous change, including the incursion of technology as artificial intelligence? What does that mean for education?

And so one of the obvious things is that now specific knowledge and expertise might not be so valuable because if the location of that data can be accessed using technology, what does that mean for people? What does that mean for education?

So Andreas Schleicher, Director for Education and Skills at the Organization for Economic Co-operation and Development, or OECD, was talking about the idea that if we try and compete, if we leave education as it is and essentially keep people focused on the content and skills, the danger is that we’ll be educating second class robots.

These humans will actually be second class robots because the technology can execute

instructions to compute and find information much faster. So we would be competing in a game that we cannot win.

So let's stop focusing on developing second class robots and start focusing on developing first class humans.

That's where the social value is going to be.

That's where the economic value is going to be.

It's going to be in your humanity, not necessarily so much in the old industrial model of knowledge and skills.

So now we're starting to say, well, what does that look like? What is it that we need to be developing in young people?

I was at a business roundtable and we asked what is it that our young people are going to need to learn to work in your industry.

Well, you need to know which ports in your computer are open to the Internet for cybersecurity. You need to be able to know that. But after thinking through it they said, well, we can teach them that. That's not really what we want from our young people.

So what do you want?

The conversation in this case, and almost every case, comes around to what we want is a bit of critical thinking. To be able to finish stuff. But you know we can kind of do that as well.

Eventually the conversation then leads to what we really need in young people is creativity.

And we need intercultural understanding because we need to use our diversity where we have many different ways of thinking

across cultures. And that might not just be ethnic cultures but different groups of people with different disciplines to be able to draw on all of that and think about how we're going to use that creatively.

So hopefully these things together create ethical understanding and that human part of us moves to the front.

I need all of that to come through my personal social capability. You want people to be influencers in my organization. I want them to be influencers for my organization outside of my organization.

It's not just about the technical skill, it's about those social skills as well. It's great to have the "nerds" who are in the technology and brilliant. But I also know these kids are going to be the social butterflies. You've got the technical expertise but I've got to be able to connect people who are going to be able to influence people to help people to understand how to use this technology to support decision-making.

That's what business is saying they will need.

So what we're seeing is that it's not about the technology in terms of what we need in education.

It's not the skills.

It's the humanity that we're looking for because we can teach all this other stuff later and in different ways.

So we're looking for that coming.

I think this is fascinating, that what we've had is this drive towards teaching our kids coding for example.

But we've completely flipped around.

What we know as scientists and now what business is starting to realize is that it's our humanity that's really important.

That's what we need to develop.

That's where our economic advantage is going to be.

So we now have math at the top of our ranking in terms of academic subjects and performing arts at the bottom for example.

Humanities are down at the bottom.

Now what I'm seeing is that at least there's a blossoming toward a different version of education where technical skills might still be important but the human skills are where most of the value resides.

But if you see that in the context of Virtual Distance what we're saying is that you're going to have to be able to navigate in a different way; to be a first-class human being in a technological environment.

We need to educate young people on how to understand the ways in which the technology is getting in the way of interactions, in the way of trust, in the way of an effective and efficient processes, and our own humanity in connection with people we work with in almost every aspect of business, education, and life more generally.

SOME FINAL THOUGHTS

Many of the themes discussed by Professor Westwell certainly resonated with us. His thoughts are consistent with our research on how Virtual Distance can create a sense of

isolation, inhibit collaboration, and undermine a sense of shared purpose.

Beginning with his work at Oxford's Institute for the Future of the Mind, Professor Westwell became interested in how technology was changing our minds, and how technology is changing the way humans interact with one another. He notes how many of the things that happen face-to-face can't happen electronically. Virtual interactions often leave us isolated without the cues we would normally get from face-to-face interaction. This tends to promote "fast thinking," as opposed to slower, more measured thinking. But we need to recognize this tendency and start to think in different ways to ameliorate the effects of communicating through technology.

Another theme that Professor Westwell emphasized was the idea of "belongingness," and he gives some examples of how improving the sense of belonging can change behavior. He says that when we communicate virtually we lose many of the natural signals that allow us to develop a sense of shared purpose. He notes that the feeling of isolation seems to be increasing among Millennials and younger children. When looking toward the future he raises the idea that we run the risk of educating "second-class robots," instead of first-class humans.

Educating younger people in a technological environment will require intercultural understanding, social skills, and an appreciation for the humanities, along with the necessary technical skills. Only then can we hope to develop the first-class humans who will be the influencers and the creative leaders in the future.

And as Martin has shared with us for more than 15 years, and especially most recently, understanding Virtual Distance, how to reduce it and how to manage it moving forward, will be one of the centerpieces in our formal and informal educational and work practices, to ensure we bring humanity back to being front and center.

— Appendix B —

Notes on Survey Research Methodology and Virtual Distance

Employee surveys have a long history dating back to the 1920s when psychologist J. David Houser had interviewers ask employees a set of standardized questions that were then graded on a 1 to 5 scale (Jacoby, 1988). From this data Houser was able to derive a “morale” score that could be used for comparisons between departments and organizations. Houser’s work spurred the activity of academic researchers who conducted employee attitude surveys in the 1920s and 1930s.

Despite this activity, the use of employee surveys by organizations was not widespread until after World War II. Organizations, consultants, and academics recognized the value of surveys and a burgeoning of survey work occurred in the 1950s. Like the early work of Houser, this resurgence focused on employee morale.

By the late 1950s researchers began to address the definition or meaning of “morale.” One article from this period noted that the literature on morale “yields definitions

which are as varied as they are numerous" (Baehr and Renck, 1958). Another paper of the same period by Guba (1958) defined morale as follows:

Morale is a predisposition on the part of persons engaged in an enterprise to put forth extra effort in the achievement of group goals or objectives.

If this sounds familiar, it should. One of the recent trends in employee surveys is a focus on employee engagement, not so very different from what surveys have been trying to measure for nearly a hundred years.

Employee surveys can be designed for a variety of purposes, but most surveys have the end goal of improving organizational effectiveness. Employee surveys are often listed as a top HR practice (e.g. Huselid, 1995). Indeed, well-designed and executed surveys can tell us a lot about how employees view the organization, management, their coworkers, and themselves.

With the advent of computers and internet-based tools, survey researchers are spared much of the work and time that used to be part of the survey process. Sending and receiving paper surveys, entering data, and conducting analyses are no longer major considerations. While this facilitates the collection and analysis of survey data it does not lessen the key requirements for rigorous survey research. Sound survey methodology can tell us a lot about a team, group, or organization. In the best case, survey information can help us understand where the key challenges are and what we need to do to meet them. In the worst case, survey results can be misleading or meaningless. Planning and executing good organizational surveys involves a number of key considerations, chiefly:

1. Is the construct (what you are trying to measure) clear?
2. Is the measurement reliable?

3. Is the measurement valid?
4. Is the sample representative?

CLARITY OF THE CONSTRUCT

Having a clear definition of what we are trying to measure may seem like an obvious step but the labels we attach to our measurements can be misleading or confusing. We distinguish between a construct – the hypothetical, conceptual definition of the variable – and an operational definition – the actual procedures that we use to measure the construct. Constructs should be grounded in a theoretical or rational model that specifies how a specific construct is different from other constructs. An example would be the constructs job satisfaction and employee engagement. Although both are related, the construct definitions should be clear enough to distinguish the two.

RELIABILITY

Once we have defined our construct we have to develop a way to measure the construct – the operational definition. For organizational surveys this usually means a standardized set of questions designed to assess the construct. The reliability of our measure indicates how likely it is that we would get the same results if we were able to administer the same measure multiple times.

The most frequently used index of reliability is the alpha coefficient (Cronbach, 1951), which analyzes the extent to which multiple measures (e.g. survey items) of the same construct are correlated. If we assume that each item is a separate measure of the same construct we can plot the increase in reliability as we add more items to a scale. Figure B.1 shows the relationship between the number of

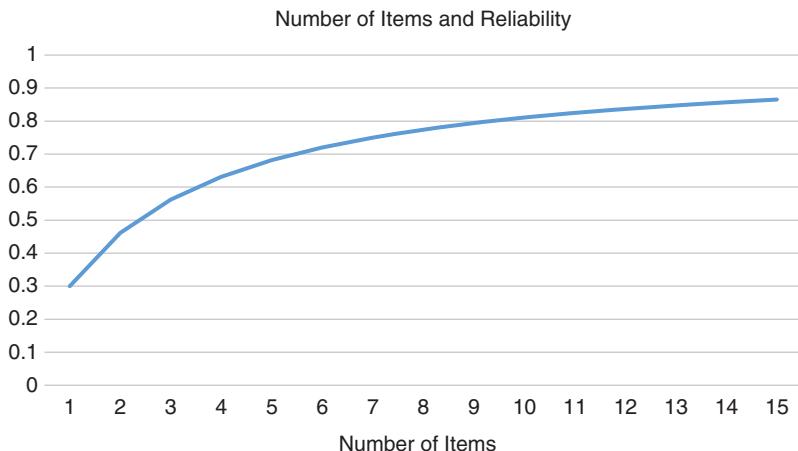


FIGURE B.1 Number of survey questions (Items) vs. measures of reliability.

items and reliability. Assuming a single item reliability of .3, Figure B.1 shows how the reliability increases as we add more items of similar quality to the scale. Reliability is important because without it we are merely measuring random variation. To pass relatively standard acceptable ranges, a set of items or questions should have a chronbach alpha score of at least .6–.7 Anything less would not meet most academic thresholds to be considered reliable.

VALIDITY

The next consideration for survey research is validity. Validity requires evidence that we are measuring what we purport to measure.

Once we define our construct we need to show that what we are measuring (i.e. the operational definition) is a measure of that same construct and not anything else. As we just noted, it is important that our measure should be reliable. In fact, reliability places an upper limit on the validity of a measure.

Once we have determined that our measure is reliable we can gather evidence to show that our measure is valid. There are several ways that we can support the validity of a measure. First, we can examine the content of our measure (i.e. the items) to see whether it fits with the definition of the construct that we are using. Ideally, this is done by having experts in the field review the items for their relevance to the construct.

A second way to assess validity is by testing whether our measure is distinct from other measures that might be in the same general domain. In the psychometric literature this is referred to as discriminant validity. Discriminant validity requires showing that a measure of a particular construct is capturing unique variance, i.e. variance not captured by other measures. This is usually done by examining a pattern of correlations. Ideally, correlations should be low with constructs logically unrelated to our measure and higher with constructs that we expect to be related to our measure. More sophisticated procedures, such as confirmatory factor analysis (Thompson, 2004), can also be used to assess discriminant validity.

A third way to assess validity involves collecting empirical data to show that the measure is related to a desired outcome. In the case of measures of Virtual Distance, for example, we collected data on a variety of outcome measures that should be influenced by Virtual Distance, such as trust, organizational citizenship behaviors, and job satisfaction. This third method is referred to as predictive validity, or criterion-related validity. It should be noted that when we assess the criterion-related validity of a measure we should also be ensuring that our measure is adding something unique to the prediction of the outcome. This is particularly important for newly developed measures. We must answer the question, “Does our new measure add significantly to the prediction that we can get with other existing measures?”

APPENDIX

SAMPLING

A final consideration is sampling. If done well, our selection of survey participants can make our results meaningful; done poorly, our results can be misleading or invalid. For organizational surveys our objective is to obtain accurate information about the attitudes or behavior of a particular group.

Several factors can bias or distort our results. One question that we should ask is whether the sample is representative. In sampling terms, we strive to have a sample that is representative of the population of interest. In the case of organizational surveys, our population of interest might be the entire organization or specific groups within the organization. Most organizational surveys are voluntary, which can result in unrepresentative samples. Survey respondents might differ from non-respondents and this can give us misleading results. Though it is often difficult to know how biased our samples are, differences between respondents and nonrespondents are sometimes tracked with interesting results.

For example, nonrespondents to Facebook's annual survey were 2.6 times more likely to leave within six months than were respondents (Judd et al., 2018). A second issue has to do with respondent motivation. For example, high performing employees may be too busy to respond, with the result that surveys are completed by average or below average employees (Wilkie, 2018). Another factor affecting motivation is the perceived lack of anonymity. Respondents who are suspicious that survey results might influence their standing in the organization might alter their response so they do not reflect their true attitudes, or they may not respond at all.

Borg et al. (2008) found that employees with low commitment, low job satisfaction, and most importantly, a negative attitude toward the company's leadership were

less likely to respond to certain items. Another, subtler set of issues are referred to as demand characteristics. Demand characteristics were identified originally as artifacts that distort the results of psychological experiments (Orne, 1962). Experimental subjects perceived the purpose of an experiment and behaved in a way that they thought the experimenter desired. Podsakoff et al. (2003) suggest that demand characteristics also operate at the survey level. Respondents may answer in a way that conforms to the desired responses of the organization or survey administrator.

MAKING SENSE OF EMPLOYEE SURVEY RESULTS

Employee surveys can be considered the first step in an organizational intervention aimed at effecting some positive change. But in order to make real change, more than just raw survey results are needed. As Murphy (2018) notes:

If you ask questions like “I trust my boss” and you have no idea how you would actually improve trust, you’re better off not asking the question. Because if you ask a question and you don’t have any way to fix it, it won’t be long before you go from static scores to declining ones.

VIRTUAL DISTANCE AS A FRAMEWORK

Virtual Distance offers a comprehensive framework that includes a set of validated constructs assessing the distance between individuals and teams or other pairs of groups. In this book we have established an impressive set of relationships between Virtual Distance and organizational outcomes.

The data collected in the Virtual Distance Index Survey enables a deeper dive to understand what is driving these outcomes and to what extent each outcome might be related to other outcomes (for more on the specifics of the statistics, please refer to any of our many academic papers or the original dissertation for some of the more technical methods involved).

The Virtual Distance Framework allows us to go beyond merely reporting the level of a single variable (e.g. engagement) so that we can understand both the antecedents and consequences of a particular construct. The implications for practice are more consequential when we can provide a full picture of employee attitudes and behaviors. This allows for targeted interventions that can focus on the key areas where there are deficiencies or even dysfunction. We would be naïve to think that improving organizational effectiveness can be simple. Improvement requires a deeper understanding of all of the key behaviors and attitudes that drive employee performance.

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— Appendix C —

Expanded List of Project Descriptions

In the Introduction we described a way to look at analytics through the lens of **Human Oriented Meaningful Experience (HOME)** – see Figure C.1.

As pointed out earlier, as a society, we've become obsessed with “data and analytics” to the point where we often forget that the data reflect us as people and not just some abstract set of numbers that are sometimes hard to understand and reflect upon. However, it's important to understand, too, that data that's reported empirically using quantifiable metrics, while very important, is not the only way to understand ourselves and our world as human beings.

As we've discussed at length in many of the chapters in this book, much of what we know about the world, we know based on our experiences, which then become understood by us as tacit knowledge: things we know just because we know them. This knowledge cannot be “counted,” because it is “soul-based”; it is alive and lives within us. And often, it's this part of us that carries the most important knowledge about our work, our lives, and our world.

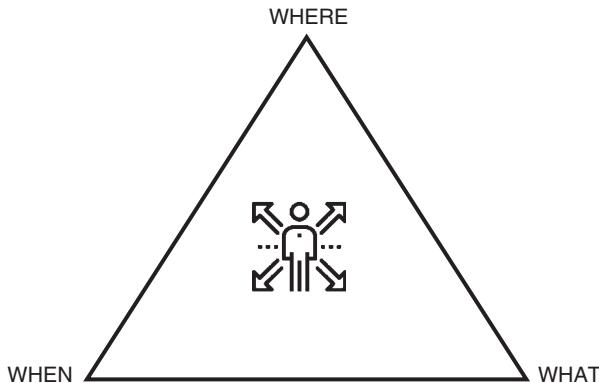


FIGURE C.1 Human Oriented Meaningful Experience HOME Framework.

Therefore we created HOME as a way for the reader to put themselves into the picture as a person, triangulating on three main aspects of our human experience:

1. The “Where”
2. The “When,” and
3. The “What”

of our work and lives.

This framework can be used at many levels and layers. We pointed out, for example, that the “When” or the time of our lives, can be captured in many different contexts, such as the celestial age of the earth or a day in the life of a remote worker.

But no matter the level or layer we choose to look at these three aspects through which we experience our world, we wanted to help you “feel” the data, to relate to Virtual Distance more closely.

As a follow-on to what was presented in the Introduction, we felt that it might be helpful to give you an even more complete view of the “What” in terms of the data and experience we drew from to write this edition, including what was reported in both the Virtual Distance Index

and other discussions. These included sets of projects, work efforts, and situations.

We've listed more of them here in order to give you a view into some of the many different situations we saw. We hope this helps you identify yourself through related experiences as we said at the beginning of the book, there is no other data set in the world like the Virtual Distance Benchmark data discussed. The depth and breadth of situations, employee levels, industries, countries and the details associated with each are unmatched in today's research on the future of work.

To reveal more of HOME in terms of the "What", we asked our 1400+ participants the following:

"Briefly describe the nature of the project/work initiative".

Project Descriptions

- Outsourcing of finance to internal and external service providers.
- Broaden simplified credit decisions channel.
- Product portfolio optimization.
- International team from sales, engineering, manufacturing and after-market support for OEM projects in railway industry. Part of team is on-site and part of the team is located worldwide.
- Campaigns selling products on export market.
- Development and delivery of a production process line to a R&D department in other country.
- Negotiating contracts for buildings being constructed in China.
- A project to implement the Microsoft Dynamics AX ERP software.
- New finance system implementation.
- A sales efficiency project.

- Building a new organization with 40 people. It involved putting four new groups into a section with me as manager.
- Cost saving project.
- Product development.
- Industrialize a new product.
- Together with my financial managers find 1% cost cutting of OPEX.
- Co-development of a new range between two design centers.
- Set the vision for our division with respect to Digital Transformation.
- Improve global integration between Order and Planning areas, in order to increase production allocation efficiency, capacity usage and therefore optimize costs.
- Implementation of a new Learning Management System Globally.
- Documentation of Project Charters for all portfolio developments.
- Adaptation of sheet metal press design to local production facilities in Brazil.
- Component development for heavy vehicle frame.
- Managing a Nordic organization together with my management team. Currently focus is on implementation of our strategy. Since I am working for a construction company everything we do is projects.
- Start-up of our new facility in China.
- My present day-to day work means running Regional Operations in Scandinavia. I sit in Helsinki, but my managers are in other cities. I have also some persons working as business partners and in matrix (HR, Legal, controlling).
- System roll-out and implementation.

- Improve the working process on a global perspective, in order to improve its efficiency.
- Incorporate the tax department from companies of the group into the Corporate Tax structure. Transition of tasks/systems/team.
- Develop new strategy.
- Create a new service product.
- Steering group for firm wide implementation/compliance project relating to extraterritorial US tax law.
- Mostly projects running for a few months, involvement from different departments from HQ as well as from local business unit. Sometimes partners are involved as well. The projects are often of pre-sales nature putting together a value-proposition or commercial project idea.
- Better work among the management team in general.
- A new intranet for the company.
- Division-wide software implementation.
- I'm responsible for six captive assembly units and process engineering support to an additional six non-captive units.
- Extending different ways of working.
- Centralizing spare parts from various regional hubs/warehouses to our main distribution center.
- Implementation of an IT system.
- Global Purchasing Council, a team of six Purchasing Managers and a Global Purchasing Manager calling for the project/team meetings.
- Source reduction for manufacturing process.
- Divestment project of one of our mills.
- Market Share growth in US Customer Center.
- Operations of several production units.

- Reorganization of delivery team set-up and line organization within my area, done as a group effort in my management team.
- Weekly pulse meetings between site managers in different cities and countries.
- Creating a strategy for a business area.
- Rebirth the profitability and on time performance of OD division.
- Pricing development. Forecasting method for the future price. Market portfolio analyses.
- Increase product quality from our China facility.
- Battle of the Numbers: to increase the number of females in leading positions in the industry.
- Top line improvement.
- Expand the current capabilities of our production center building an entire new production hall with all the required equipment.
- Initiating and Business Process Outsourcing service for a client in Europe delivered from Manila, the Philippines.
- Opening up a new Company in Mozambique.
- Harmonization of technology between companies.
- New product introductions.
- Remapping the working process of vehicle from customer order to delivery.
- Manufacturing footprint change.
- Transfer of production and product development of a certain product.
- Establishing a new company in Tanzania.
- Transfer of production and equipment to India from another unit.
- Introducing SAP as ERP system in Germany using a global template developed by the parent company in Sweden.

- Sales office, where I am located when not travelling is in Chile, covering all Latin America. I have sales-people based in Sweden, Brazil, Chile, Canada, and Germany – covering all Latin America.
- It is a balance scorecard preparation for the global unit in my department – included various inputs from site heads across the globe.
- Streamlined processes 1. Process improvement in Accounting 2. Policies update 3. Cross functional support/training.
- I am responsible for Laboratory Technology. Laboratory technology designs and implements high end world class testing facilities to the R&D departments. I am responsible for 93 employees; within the organization I have seven managers. The main responsibilities of the seven different groups within laboratory technology are: Project Office – Project management, Mechanical Design, Software Design. Electrical Design and Automation, Measurement Technology, Calibration, Coordination of R&D Real Estate including security, safety and environment. The R&D organization is divided in different organizational sectors: Powertrain Development, Truck, Cab and Bus Chassis Development, Vehicle Definition. Laboratory technology delivers what sectors need to do their “R&D jobs.”
- Building collaboration network between our support function and the R&D organization going global to about nine sites.
- We have a common council for Safety health and quality.
- System integration in an aircraft.
- Develop a content management system to provide product and organizational information to employees, distributors and customers.

- We are together with colleagues from Brazil and Belgium developing a training program for our sales force. The intention is to build a modularized training concept that enables the sales force to sell our products based on values and customer solutions.
- Implement a new ERP system.
- Contract management project.
- New product line investment.
- Make the operation and sales of a new product produced by a new facility according to our target.
- Alignment of research activities between two departments in two different countries.
- Move to one sales and operations planning process.
- In my team of direct reports, we are all spread globally. I am thinking on both our day-to-day activities in general, and a project we have been working on in particular. The project was about building a leadership training program.
- Brand Positioning Project Management group.
- Homologation activities for the Chinese market regarding the introduction of a new vehicle.
- Relocation of production from Europe to Asia. It is a big global project with thirty-something members, but I choose to only focus on one subpart of the project containing my own organization and what I am responsible for. The changes that will be done in my production unit. There are a lot of Virtual distance issues.
- New Engine program for new emission steps.
- Reduce lead time in answering technical support questions.
- Road show for new truck.
- Strategy work for 2020.

- Develop new software application for monthly KPI reviews.
- Acquisition of a company.
- Get input from our distributors regarding their problems, issues and needs.
- Purchasing a new IT system.
- Develop new rewards program for our distribution.
- We are working in a project in Europe, in order to reduce the number of accidents and improve the health attendance.
- Bid Process to secure a global frame agreement for engineering product €3.5m each.
- Telecommunications equipment SW development.
- Investment project – rebuild parts of the production line.
- Coordination of R&D portfolio globally.
- Way of working in my closest team in general, the Indirect Purchasing management team.
- Outsourcing and closure of a plant in UK. I was responsible for the outsourcing, buildup of a global supplier base, transfer production and a team of over 50 people from many different countries and cross functional skills (R&D, logistics, Quality, Sourcing, etc.).
- MOOC for university.
- Design Thinking for Innovation. Cooperating over Skype in a dispersed teams of colleagues.
- IFLNCC 201509.
- Responsible for Competence Development, Training and Culture Transformation at housing cross 8 countries.
- We work together in developing real estate during all the phases from acquiring land to selling a complete

and let-out building. During this process we need to collaborate and come to different agreements with cooperating partners and counterparties where we use our joint and different competence and skills in order to reach different agreements, etc.

- Leadership development and training.
- Corporate Sustainability Department including Quality and Environmental managers and advisors. Support management teams with strategic work, management systems, audits and reporting, as well as supporting in tender processes and operational projects within our fields.
- Strategic and operational HR support to the business. Part of management group driving the HR-agenda based on goals and targets of our business.
- I'm working in an executive committee. I have my employees in different projects out of my office. My meetings with my employees are often on the building sites. The project's report status to me and we discuss the progress as we discuss and implement further development.
- I work with leasing and development.
- Finding and developing best practices and ways of working to support strategy and business success.
- HR-working groups. We prepare future courses and competency level into a common understanding and practice.
- Recruitment, compensation, competencies development, rehab, reorganization, redundancies, etc.
- Receiving and discussing guidelines from global before taking it local.
- We work with proposals to different customers, economic results and follow-up around that, strategic short-term and long-term goals, a lot of following up using our IT tools.

- Questions around human resources day to day and in a long perspective, a big focus on working environment the last years.
- Strategic processes, improvement of systems and processes, how to differentiate ourselves in the market, advising sales with particular focus on environment.
- We are developing the conceptual and practical framework of leadership and talent development for the Group. I am the VP for the area and my team are responsible in each business unit (eight people). We develop common trainings and tools. The top-down line is only starting to be acknowledged in the company. Historically the Group has been locally very independent. However, my responsibility is not in question, only that we don't have concepts or processes in the backbone. Therefore a lot of consensus aiming work is being done – discussions and feedback.
- Health and Safety.
- Industrialize a new product.
- We just invested and set up a Productivity Centre in Singapore. Both external and internal customers will be trained. With their skills uplifted, the business is expected to grow by 20% annually.
- Design & Development function, including engineering, development, and system Integration.
- I am heading a product unit by globally distributed product managers.
- Management of Cross Border Projects is one of the very important responsibilities for me in my role. It involves colleagues across the world whom I need to communicate.

- I am working as CFO (HR, Finance and Legal Affairs, Business Control and Purchasing). All middle managers are from Peru, I am from Argentina. The division has been growing during the last two years. We are 32 people in total.
- I'm implementing a new productivity program and are dealing with some mistrust.
- I am leading an organization with five on-shore experts (not managers) and one Manager Based in India, one Manager Commuting between India & Sweden. The number of FTEs in India being managed by these managers (reporting to me) is 103.
- I have my subordinate teams in two different sites. Five sub-managers.
- Work in a global environment creating consolidated financial reporting.
- Heading a team that coordinates marketing and sales activities for a business area.
- I work as manager for a design group, and we have a “sister” group with the same responsibility in Sao Paulo, Brazil. I participate in a weekly meeting with this group and their manager.
- My line responsibility is to manage a group of eight persons, working with our supply chain.
- I am leading a department with ten senior persons responsible for commercial strategies and pricing for a product area.
- I manage a Leadership Team – six people are located in Barcelona (including me) and two people are located in Madrid.

In addition to the corporations and other institutions represented in the list above, we also work with college students where Virtual Distance also shows up and

creates the same kinds of difficulties as it does in more industry-oriented settings. So we include here some of the descriptions given by college students to open a window to you the reader, into some of what the younger people about to enter the workforce are facing as they attend university.

As we discussed earlier, the data we looked at based on views from the Millennials show that they are the highest on learning but the lowest on many other outcomes, such as trust. What we also hope you'll start to see in revealing some of the background context to their Virtual Distance analyses, is that they have a great deal of experience working in teams before they get to their next job out of school. And there is much to learn from them in terms of ways in which they found a way through.

The point: If you were to talk to the young people entering or new to your organization at this level, it's likely you would get a head start on reducing Virtual Distance and enhancing their sense of belonging and interdependencies with more experienced employees. It may help you to see them as more fully formed multidimensional and whole people instead of what we often see, which is a view of our youth as being simply tied to devices, as we discussed in the Introduction.

Interesting note: As you read through these you will notice many of the same patterns we see in industry and other institutions in general are also reflected in academic settings. The point is that Virtual Distance is an issue to contend with everywhere and shows up in much the same way for this cohort of people, no matter the context.

The following list was based largely off the prompt:

“In the space provided, please describe a project that you worked on of some sort. This could have been (or is currently) a school project, a work project or something related to a family project.”

- Last semester, I was required to work with three other people for a group project. I have never had many great experiences with group projects, and unfortunately, this was not an exception. Because no one seemed to want to take the lead position, I tried my best to act as the leader in the group. One person never showed up to our meetings, let alone to class, and also never responded to our emails. The other two members and I had to divide up the work, but it was not divided up evenly, so one person ended up doing too little or too much work. Overall, we lacked communication and a set goal, so I hope to use that experience to prevent any future group projects from resulting in the same way.
- I am working on a project for one of my English classes in which my team of seven has to make a Wikipedia-type page on two authors and their works. Our group met one time, in class, and only because our professor had us all meet, otherwise we probably would only have communicated over the internet. We split up the work quickly and easily while we met in person and actually had extra time left over to talk. Since that day, which was about a month ago, we have not met in person. Our only communication has been through email. One group member has emailed us a few times, and I was the only one to reply to him. I did my part of the project and sent it to everyone along with an email and questions about the status of their work, and I did not receive any replies. This weekend the active person emailed us suggesting that we meet in person this week to practice the presentation of our project, and suggested a time and place, and asked what times worked for us. I am still the only person in the group to reply. As a result, our project has become extremely impersonal, I don't even know all of my

group members' names, and I'm afraid that when we present it, it will seem unorganized and unprepared, for we have barely collaborated beyond splitting up the work.

- In one of my classes this semester, we are put into groups of five and have to do a group presentation at the end of the semester. Each person was assigned a company and we have to research certain aspects of the company and write a two-page paper that is due every Tuesday on a specific part of the company. Also, every Tuesday, one group member has to write an executive summary. An executive summary is a two-page paper that condenses all five members papers into one. Each person is supposed to write at least two executive summaries, but that has not happened due to group members not showing up to class and not handing in papers.
- There is a group work assignment this semester on research methodology. There are three people in my group who try to accomplish the assignment every week.
- At my office at work, we had to design new software for access to our patients and their medical databases when we treat them. On our "team," including myself, there were four people and we worked together to find a way to make an easy system for all of us to use. I was the youngest of everyone on the "team," and most of the people were a lot older than me, so using technology didn't come as easy to them as it did to me. I had to adjust my ideas to make it seem easier for my other coworkers and we ended up developing a system that we use that is easy for everyone. The software is really direct and simplistic and it allows us to easily access our patients and their medical charts.

- I had to work together with my classmates for a final project in my freshman seminar class. In this group project, we had three people including me. We had to present a topic in which STEM topics joined together with arts and the media. We didn't have much time to work during class and most of the time communicating was spent through Facebook.
- In the fall of 2016, I worked in the electrical department of the Big Box store and ensured my coworkers were informed of my availability at all times in case I was forced to help customers outside of department or if one of the supervisors had an additional task for me to complete. In my team there were three people, including myself, who had varying capabilities and experience. There was one senior self-taught electrician that functioned as supervisor essentially for our group, with an associate in charge of selling, and another of one in charge of stocking the shelves. Prior to being put on the sales floor all associates are trained in the staff room with online videos and once they pass their assessments within their particular department they are put on the sales floors, so in my case, although I was trained as associate for the electrical department I was also asked by the supervisor in our group to stock the shelves if my other team member was preoccupied or did not call in.
- In my Entrepreneurship class, the professor assigned groups that we will perform all assignments with for the duration of the semester. Including myself there are seven of us in one group. The assignments vary a lot. Every Friday for example, we have a two-page paper on a case study he assigns. We are in charge of breaking up the work evenly. We also just finished a PowerPoint presentation project that is worth 15% of our grade.

- Last semester, I had to work with a group to create a project that clearly answers the question: How do the areas of Science, Technology, Engineering & Math and Arts, Culture & Humanities influence each other? Groups had to present their project in class and presentations were required to be five minutes in length. Each group member had to take a turn speaking or performing during the presentation. There were four people in my group (including me). Our group met about five times throughout the last two months of the semester before presentations began. Our group communicated mostly by text but we also utilized email. For our first meeting we discussed several topic ideas and narrowed it down to topics specific to art and science. Art influenced by perceptual psychology has a huge presence in our world. Therefore, showcasing that art became the goal for our project. Our group worked on “perceptual drawings” and a Prezi presentation. We had some “issues” with one of our group members so we had to call for a meeting. Aside from that, the project was successful.
- A group project I recently worked on consisted of me and two female team members. The project was to create a Utility Application that could be used to solve an issue that was not considered a “first world problem” by the professor’s standards. The app would run only on an Android device since we were developing it using MIT’s software, App Inventor.
- I worked on a cross-cultural psychology program with a group of girls last semester for the entire semester. There were six girls in the group.
- Me and my lab group had to create and formally propose a lab. There were four of us, with radically different ideas and schedules. We had to write an introduction including researched methods and formulate

a list of materials and procedures. We also had to formulate a hypothesis and a means to collect data.

- I had five people on my team. It was a communications course and we had to do a group presentation. Our topic was chocolate and basically all that related to it.
- Last semester in a sociology class concerning race relations we had a group project that counted for a large percentage of our grade. Each group had about eight students; however, at my group's peak we only had seven participants. We had to collaborate to construct an essay, visual, and a verbal presentation. We were given very little class time to work with our groups so most of the work had to be done outside of class.
- In one of the biology lab classes I had taken, I worked with the three other people in my lab group (total of four people including myself). Our task was to design our own experiment for a lab we would have to perform the following week. This lab would be designed based off of the information we had obtained during the lab we had done the week before. As a team, we had to come up with ideas and agree on an experiment to perform based on the information we had that would be interesting and reasonable to perform in 2 hours.
- I'm in cultural organization known in the Philippines and we just gave a performance at a local university this Saturday. Nine schools on the east coast gathered to each show and portrayed a cultural/political or any problem that is occurring in the Philippines and educated the D3 community about it through a skit. There were 25 people in the cast including the leads, dancers, people in the background, and prop/backdrop holders. I was a dancer in two of the scenes in this skit. We started collaborating on this performance towards the end of the fall 2016

semester. It's the most important and largest event for this group so we spent countless hours and nights putting this entire thing together. From creating the script, the audio, choreographing the dances, editing the skit and painting props/backdrops, it was a huge project that took up a huge chunk of time. Even though there were 25 people in the cast, we had other people in the organization help out as well with painting sets and anything that we needed.

- I am currently working on a project to create a physical map of the brain. We are attempting to achieve this goal through the use of bioorthogonal chemistry. There are currently 11 people working on this project.
- Recently I have been in a lab group and we had to design our own experiment. This involved designing an experimental plan and coming up with how we would gather, measure, and analyze our data. We decided to test caffeine's effect on heart rate through an ECG and reaction time. We were our own subjects. There were 4 people in my group, including myself.
- I'm currently working on a project at my church to help grow and increase the number of people inside my church. We have a team of about 20 people.
- I have been a volunteer with an animal rescue group since August of 2016. I previously volunteered with another animal rescue group for 6 years before joining this one. In August when I joined, I started a cat program for the rescue and am the Cat Program Coordinator. The rescue has approx. 50 volunteers currently, give or take.
- I am currently working on a project which is a simulation of owning and operating a pretend car company conglomerate. There were 4 of us in total on the

team. We each were responsible for different facets to operating this simulated company.

- My first semester in college I had to do a group project with 2 other students in my cultural geography class. Each group had to pick a country and then research its population, culture, religion and beliefs, language, education, economics, politics, even popular foods and clothing, etc. Once we gathered all that information we had to write a paper, make a PowerPoint presentation, and for extra points we could have dressed like the certain culture and bring in popular foods or artifacts that related to the culture we chose to do. My group chose to do Greece.
- In my biology class we were assigned to groups randomly. Including me, my group has 4 people. For our first assignment, we have to come up with a question for our experiment. We agree on meeting outside of class to discussion. Deciding on our meeting time was a very difficult task. Since we don't know each other, none of us want to sacrifice a little to meet early during morning or late during afternoon. Two A & B group members sleep very late, so they don't want to meet at 10 a.m., which is the time that none of us have class. The reason is they still want to sleep. One C group member does not want to meet at 5 p.m., because she lives off campus and she is usually home by that time. Selecting a time and date is very difficult because we have different classes and things to do. In addition, we don't know each other; thus, we don't make up free time to accommodate each other. At the end, we finally decided to meet on Thursday 12.30 p.m., which is right before the class. Since the class starts at 1p.m., we only have 30 minutes to discuss. Three of us (B, C, D) arrive on time and (A) one

arrives 15 minutes late. Her excuse for the lateness is oversleeping and have to get lunch. I don't trust (A) in the following group activities because of her behavior.

- In my Chinese and Chinese American Civilization class, my professor has us working in groups of 4 to present a topic of her choosing. In my group I took the leadership role, and tried to direct everyone on what to do. Unfortunately, I work all the time and did the work for the other people in my group, so the only way of communicating was through via email. Things didn't really get done until the night before. Miscommunication happened many times. For example, when I assigned parts of the topic to each person to write about, so people thought to pick something someone else was speaking about. One of the members in my group had to do a quick last minute change because 2 people were going to talk about the same exact thing. On a positive note, we completed the presentation and received a great grade, but I wouldn't want to contact my group through email only, because I felt so disorganized.
- For a project I worked on we had to come up with a new business idea and business plan and present it to the class. There were 5 people on my team, 2 boys and 3 girls.
- The last project I worked on in a group was for a bio course in which we all had to complete together. Everyone would get different sections to complete. We had to rely on each other which didn't help due to there being a slacker in the group, which we would have to take his work amongst ourselves. There was 6 in the team.
- Last semester I worked on a group project with 5 people. The tasks involved us choosing 5 stocks of

our choice, and recording highs, lows, and volume from Monday to Monday. Then investing \$100,000 per stock and computing return on investment on excel (ROI).

- Last semester, I took a Philosophy class in which a large percentage of our final grade depended on a series of different group tasks and assignments. The assignment I will be focusing on for this assessment is the final project of the semester, which counted for 20% of our overall course grade. The professor in this class randomly assigned us to groups for this project, and there were 4–5 people in each group. At a glance, it may seem like my group was at an advantage, having 5 heads instead of 4. But what we would later find out is that having more people in a group wasn't always beneficial.
- In this group project that I worked on last semester, there were 5 people I was working with. We had to do a project on a technology that somewhat influenced a certain culture, and possibly damaged their culture/enhanced their culture.
- My coworkers and I all had to work together to create gifts for our manager and throw her a surprise baby shower. There were about 10–12 people working together.
- The most recent project that I have worked on was during my summer internship. All of the summer interns, including myself, had to come together and create a program for the following first year interns to go through. This program is supposed to help them get better acquainted with one another and understand the department we were working in. The team of interns was about 6 people all together.
- A project I have been recently working on is updating the cocktail menu at the restaurant I bartend for.

When I got involved in this project, the cocktail menu had remained the same for 6 years. I involved the owner and the rest of the staff in order to come up with new and more creative cocktails. We devoted a whole day where we brainstormed new recipes and sampled our new cocktails. The whole team agreed on a number of drinks we would be keeping on the menu and then added the new selections as well. There were 7 people involved in total.

- Worked for a start-up in 2014 that focused on a smart phone app. Majority of time was spent recording data and responding to feedback, but I would occasionally meet with investors. The company's founders were located in Israel, so US employees consisted of me, a close friend of mine and 2 interns. I consider this entire experience a project as it was only meant to enhance my resume (my friend was a significant shareholder) and lasted for 6 months.
- I worked on a project for a public speaking class where we had to plan a joint speech together. There were five people in our group.
- I worked with a team on an ITS project during my first semester. The project was to research a topic of our choice and to make an awareness video on that topic. My team consists of three people, me included.
- I recently had to work on a project for one of my classes that involved going to the virtual reality lab and using an app to capture two on-campus events. There were three other people on my team. We had to use and take pictures of the virtual reality machine and get 360 degree view shots of the events we went to and do a write-up about what we experienced.
- The project I worked on was for my intro to business class. For this project I was in a group with three other girls and we were told to do a semester long

analysis of a specific company, we were all assigned one separately. Each week we would complete a BPC (business plan component) on the company we were assigned, this is where the group came in. On the following week, one group member was to turn in a summary of the collective BPC's and present about them. This would happen every week for the remainder of the semester. At the end of the semester we had analyzed every aspect of these companies and did one long group presentation on all of the companies.

- Over winter break, I had to get personal videos and pictures from 25 different girls. I had a certain deadline that I had to submit these items. I explain to them in a group chat what was required of them and the deadline. I posted this in an official group page as well. Although I posted the information on multiple platforms, I would still get questions on what they had to do. I told them this well in advance and two weeks before the deadline, I had only received one. This is a task that a majority of these girls had already done numerous times since this was a semester task that needed to be done. Even though they knew what they had to do and that there was a deadline, they still pushed it off to the last minute. I had to privately message many of the girls to remind them to do this, in addition to my weekly post to remind them in the group chat. I feel like this should've been more of a priority to them and it was fairly easy task as well. However, they did not feel the need to do the task. Even as the deadline approached, there were still numerous girls that had not sent in the video/picture. It not only delayed my plans but also delayed what they had to do, too.
- There was a big project that was held by a global bank, about 30 or more people were in it, and we were divided into a group of 5. Our responsibility was to

take a survey of people's opinions of the bank nowadays (their preferences).

- Last semester, I was working on a semester-long project with 5 other students. The goal of the project was to meet a demand of a group of people that had not yet been properly met. We designed the concept for an application that would allow people in a community to post their needs, and connect them to people who could supply those needs, either other people or organizations in their community, whether it be food, clothing, etc.
- My 2 cousins and I often collaborate on making a meal on the weekend. Whether it's chefing it in the kitchen or going to a fast food place, we always work together to gather food.
- Over the past 8 years, I'd volunteer with many others to take part in missionary projects. Basically, a group of 20 individuals would collaborate with other missionary groups from around the world, to provide assistance in rebuilding or building the households of elderly or disabled.
- One project I remember had 6 of us and we all chose a different task to complete. The project focused on how technology had changed almost everything in our society. We explored the effects on religion, education and even politics. My team were very productive we got things done on time. our presentation was good and we had a very good grade.
- For my job, I have to complete a quarterly report to submit to our funding source. This report is a collection of data about our clients, their demographics, what we've done to help them, etc. I have to rely on my coworkers to fully and accurately complete the form I use to gather all the information needed. The complete team consists of four people: myself,

my supervisor, and the 2 counselors who meet with clients. This is the process: they meet with the clients, they fill out the data points form, they give that to me, I compile all the information from the data points, put them onto the report, meet with my supervisor to go over it, then we submit it. The most recent report was done at the beginning of this month. One of the counselors had left recently, and her replacement was still training with the other counselor. Because of this, the data points were incomplete or wrong. Correcting the problems wasn't very difficult; the counselors and I have cubicles very close to each other, and when I had questions or comments, they could respond immediately. The report was submitted on time to the funding sources, and there were no errors.

- At work we had to work together to meet our daily goal sales. it was about 15 people.
- Last month I worked on a group project in school for my ecofeminism class. We were a group of 4 and were given the task of putting together a presentation and writing a 10-page paper on our topic, which was on Indigenous leaders.
- My friends and I are currently in the midst of creating a new game. We dislike how the game's current state is so we are going to submit the finished project to a contest in hope of some recognition in order to change what we love. It is an entire rehaul of the game; however, it keeps the basics of the current official game.
- I worked on a project in my English Class with about 5 other girls. We had to create a class wiki so that others in the class would be able to refer to our presentation/website as a way of reviewing for the final.
- For one of my marketing classes at my old school we had to market an event that would take place there.

I was on a team of 6 people and we spent most of our time together brainstorming, but when we had to do actual work most of it was done with email, text, etc.

- In a team of 7 people, my marketing club and I created survey questions for one of our clients.
- It is a current group project that my classmates and I are working on. There are 9 of us in a group and we have to research Britain's military, economic state, welfare system, current EU status, etc. We have been trying to meet up for the past week and a half and have only gotten 3–4 people together at max.
- There are about 6 people in one group sharing certain experiences on a specific topic. We all sit in a circle and listen to each other speak.
- The situation that I have called to mind is my experience working in an office. I work with 2–3 people depending on the day in addition to our program director who is present every day but in an office adjacent to the main office. We handle paperwork, correspondence, visitors, billing, phone calls, and we attend to the needs of the director and other colleagues in the building. All office employees are part-time workers except for the director.
- A class project required a collaborative effort from all group members requiring them to meet at least once or twice a week to create a business model for a start-up.
- I attended a marketing class while on my internship at an entertainment company. The name of the class was called Marketing You.
- Working in a team of 5 regular employees and one supervisor, we talk through the plans for the month to prepare for it. This is at a daycare center where plenty of children are running around.

- During work, I work, typically, in a group of 3. I have to communicate my coworkers about which tasks I am doing and which ones still need to be done. When an event is going on in our building, I must communicate with them to see what still needs to be set up and what responsibilities we have before the event begins. When working in the lobby, we must communicate about whether we need to refill the printer or clean up a mess.

Index

- 3M Corporation, employee trust, 113
- A**
- Ability, trust factor, 104f
 - Ad hoc cross-functional team development, 176, 177–179
 - Affective trust, cognitive trust (contrast), 102f
 - Affiliation-related disconnects, impact, 22–23
 - Affinity Distance, 44
 - importance, 98
 - reduction, 94, 230
 - action plan, focus, 171
 - tactics, sample, 174f
 - strategic focus, 163–174
 - Virtual Distance
 - component, 69, 86–94
 - representation, 87f
 - “Aliveness,” notion, 247
 - Allen, Thomas, 50–51
- Alpha coefficient, 297
 - Ambassadorial Leadership, 239
 - Analytical tasks, emotional behavior (contrast), 61
 - Analytics, perspective, 2
 - Asynchronous communications, real-time communications (contrast), 176–177
 - Audio conferencing, 211–212
- B**
- Baby Boomers, 285
 - Bacon, Kevin, 168
 - Beijing (virtual distance mapping case study), 127–134
 - Belonging, notion, 277–281

- Benevolence, trust factor, 104, 104f
- Boundary-spanning team, assembly, 178
- Brainstorming, 225, 232–233
- Brainwaves, artistic performance (interaction), 223–225
- Breathing practice, 263–264
- Brennan, Susan, 204
- Building stage, 234
- Virtual Distance, impact, 237
- Business Roundtable, “Statement on the Purpose of a Corporation,” 147, 148
- C**
- Candy test, 255–256
- Chesbrough, Henry, 188
- Chief Technology Officer (CTO), 142
- Clark, Herbert, 204
- Clockwork, term (meaning), 242
- Cognitive neuroscience, 273
- Cognitive trust, affective trust (contrast), 102f
- Collaboration, effectiveness, 15, 234, 235–236
- Virtual Distance, impact, 238
- Collaborative idea generation, 233–234
- Columbia Accident Investigation Board (CAIB), 117
- Communication Distance, 80–83, 128
- minimization, 176
- reduction, 181
- strategy, 159–161
- Communications improvement, 88, 176, 179–181
- modes, 23. *See also* Virtual communication modes.
- trade-offs, 180
- real-time communications, asynchronous communications (contrast), 176–177
- Communication technology, 202f
- evolution, perspective, 38–39
- history, 38–40
- Computer mediated communications (CMC), 40
- Computer supported collaborative work (CSCW), 40

- Consideration, 61
importance, 267–268
- Context
information, sharing,
179
validated context,
absence, 161
- Contextual distinctions,
awareness, 179
- Copresence (grounding
tool), 204
- Core competencies,
186–187
focus, 187–188
- Corporate infrastructure,
elimination, 190
- Cousins, Norman, 253
- Coworkers, trust, 103–104
- Creativity, 51–52
boost, 237
brainstorming, usage,
225
innovation, contrast, 226
- Crick, Francis, 105,
112–113
- Critical relation path
estimation tool, 140f
- Critical relationship path(s),
144f
identification, 146
location, 127
example, 132–133,
133f
- Critical success factors,
implementation, 166
- Cross-fertilization,
occurrence,
112–113
- Cross-functional team
development. *See Ad hoc
cross-functional
team development.*
- formation, 178. *See also
Virtual Distance.*
- Csikszentmihalyi, Mihaly,
84
- Cuban Missile Crisis,
253
- Cultural Distance, 87,
88–90
reduction, 89, 181
strategy, layering (usage),
163–164
- Cultural diversity, increase,
55
- Customers
satisfaction, 13
- D**
- Damasio, Antonio, 58
- Deception, distance
perception (impact),
71
- Decision making, support,
291
- Depth perception, 82, 86
- “Digital natives,” 20
- Discriminant validity, 299
- Distance. *See Virtual
Distance*
- Diversity, impact, 56–58
- Downstream connection,
94
- Dynamics DNA, 69

E

- Edmondson, Amy, 189
 Egocentric bias, 208
 Emails
 acronyms, usage
 (avoidance), 180
 characteristics, 205
 copying, timing, 209
 etiquette, selection,
 180
 exchanges, 179
 face-to-face dialogue/
 interpretation,
 contrast, 207f–208f
 formality, 180
 meaning, examination,
 180
 modeling, 179
 “No Reply” email
 practice, 266–267
 returning, expectations,
 209
 “urgent,” usage
 (avoidance), 177
 usage, 202–203
 reduction, 125
 words, focus, 179
 Emotional behavior,
 analytical tasks
 (contrast), 61
 Empathy gap, 258
 Employee Engagement, 13,
 121, 296–297
 Virtual Distance,
 relationship,
 116–117, 116f
 Employee Satisfaction,
 Process

- Improvement
 (interaction), 142
 Empowerment, 56
 Engineering organization
 case study, 139–145
 Ensembles. *See* Virtual
 ensembles
 virtual workforce,
 relationship, 196f
 Executive function,
 275–276
 restoration, 260,
 264–267
 self-regulating
 dimension, usage,
 266
 usage, 277–278

F

- Facebook connections, 166
 Face-to-face (F2F)
 communication,
 grounding tools,
 204
 Face-to-face (F2F)
 conversation,
 impact, 206
 Face-to-face (F2F) dia-
 logue/interpretation,
 emails (contrast),
 207f–208f
 Face-to-face (F2F)
 interactions, 52, 203
 Face-to-face (F2F)
 meetings, 236–237,
 276
 allowance, 108

- characteristics, 205
discomfort, 55
guidelines, usage, 180
impact, 176
usage, 176
- Facial communication, 213
- Facial expressions, 201
- Facial movements,
perception, 73
- Feedback, 28, 201, 209,
213
- Financial
success/innovation
(business goals),
direct/indirect
changes (Virtual
Distance impact),
46–47
- Flow, increase, 224
- Flow: The Psychology of
Optimal Experience*
(Csikszentmihalyi),
84
- Formal status, deemphasis,
92
- Franklin, Rosalind, 105,
113
- Friedman, Tom, 40
- Front end. *See* Innovation
activities, Physical
Distance (usage),
237–238
fuzzy front end, 226–227
Virtual Distance, impact,
237
- Fuzzy Zone, 16–18
examples, 17f
- G**
- Garnier, Jean Pierre, 186
- Generations
distribution data, 19–20
Threshold Generations,
25–26
- Virtual Distance
Benchmark Data,
24f
- Generations X/Y, 19,
285
- Geographic distance, 56
Physical Distance
component, 71–75
reduction, 181
strategy, in-person
decision criteria,
155
- Geographic gaps, effects
(minimization), 74
- Geographic separation, 53,
75
impact, 55
- Gestures, usage, 201
- GlaxoSmithKline (GSK),
186
- Globalization
growth, tracking, 57
impact, 56–58, 70
increase, 55
technology,
importance, 57

- Global pharmaceutical case, prioritization analysis, 153–154
- Goals, clarity, 13, 117–119
- Goleman, Daniel, 203
- Golf balls, innovation example, 226–227
- Grounding tools, 204
- Group decision support systems (GDSS), 40
- Group formation, example, 193–194
- Group identity, development, 178
- Group input, respect, 178
- Group work, disturbance, 177
- Gruzelier, John, 224
- Guilds, 184
- H**
- Hamel, Gary, 186
- Hawthorne Works, studies, 60
- Healthcare, Cultural Distance (impact), 165–166
- Heuristics, sample, 155
- Hinman, Brian, 211
- Hofstede, Gert, 89
- Houser, J. David, 295
- HR People Analytics conference, 126
- Hub concept (GSK), case study, 186
- Hudson's Bay Company, 56
- Human artifacts, 245–246
- Humanhood, reconstitution, 252
- Human interaction, rules, 271
- Human Outlook on Meaningful Experience (HOME), 3, 3f, 9, 26
- base, 19
- building, 161
- framework, 305, 306f
- HOME-based view, 22
- perspective, 18
- Human sight, mimicking (example), 245–246
- Humor, usage (soul-based leadership principle), 255
- I**
- Idea generation, 51–52
- criticism, 225
- Illumination studies, 60
- Industrial engineering, creation, 59
- Information
- disconfirming (soul-based leadership principle), 259
- personalization, ability, 201
- transmission, 282–283

- Information and communication technology (ICT), 39, 51, 189
- Information exchange effectiveness, 234 meaning, 237 Virtual Distance, impact, 238
- Information technology (IT), 39, 172 divisions, resource usage, 92 rise, 188
- Initiating structure, 61
- Innate social skills, unavailability, 72
- Innovation, 13, 121 boosting, 116 creativity, contrast, 226 defining, 226 example, 226–227 exploitation, 236–237 front end, 232–234 improvement, best practices, 219f–220f phases, Virtual Distance (impact), 237
- reimagining, 223 understanding, 237–238
- risks, 113
- social networks, relationship, 228f
- trust, relationship, 114f
- Virtual Distance, relationship, 112–116, 115f, 232
- Instant messaging (IM), 42, 51 increase, 52
- Integrity, trust factor, 104, 104f
- Interdependence, 56 sense, impact, 190
- Interdependence Distance, 87, 93–94 reduction, 182 strategy, discovery/reformulation, 172, 174
- Internal process improvement group, project attempt, 142–143
- International boundaries, work, 57–58
- iPhone market dominance, 232 release, 55–56
- J**
- Job Satisfaction, 121
- K**
- Kahneman, Daniel, 4, 274
- Kennedy, John F., 253
- Key performance indicators (KPIs), 99 definitions, 101f–102f
- Virtual Distance Factors, impact, 100f

- Key players, identification, 127, 128
- KOF Index, 57
- L**
- Language, appropriateness, 209
- Laughter/humor, importance, 253
- Layering, usage, 163–164
- Leadership
- conceptual/practical framework, development, 28
 - improvement, best practices, 219f–220f
 - soul-based leadership, 239
- Leadership Effectiveness, 121
- Learning, 13
- Virtual Distance, relationship, 111–112, 111f
- Lewin, Kurt, 184
- LinkedIn connections, 166
- Listening, practice, 265–266
- Live client engagement, Virtual Distance Map (photo), 124f
- Lived-experience practices (soul-based leadership principle), 259
- Living thing, being alive/aliveness (contrast), 247–248
- Location
- importance, 50–56
 - location-based challenges (work), 44
- Lojeski, Karen (virtual distancing research), 6
- M**
- Magnetic resonance imaging (MRI), usage, 54
- Management
- senior management involvement, 236–237 support, 234
 - skills, understanding, 177
 - theories, emotional/analytical/task-related considerations, 64
 - virtual teams, interaction/effects, 42
- Management Plan, template. *See* Virtual Distance Management Plan
- Maslow, Abraham, 184, 190
- Mayo, Elton, 59, 60, 184, 190–191
- Meaningfulness, importance, 267
- Media richness, 201, 202f
- Media X lab (Stanford), 63

- Meetings. *See* Face-to-face meetings
confirmation, email usage, 177
scheduling, 75–76
times, rotation, 177
- Meltzoff, Andrew, 278
- Metacognition, 260–262
usage, soul-based leadership principle, 251
- Metacognitive insight, example, 250
- Meta-teams, term (usage), 197
- Milgram, Stanley, 168
- Millennials, 26, 285
assumptions, 167
attraction, 214
- Milosz, Czeslaw, 249
- Mind drift, production, 85
- Mindfulness, 260, 262–264
soul-based leadership principle, 259
- Mind movements, character (defining), 261
- Miscommunications, 80
- Multi-Load Distance, reduction, 181
- Multi-Load strategy, optimization, 163
- Multitasking, 80
minimization, 177
stress, 83–85
- N**
- NASA, Orbital Boom Sensor System
- (Organizational Distance problems), 77–78, 117–118, 234–235
- Natural language, usage (ability), 201
- Needs Hierarchy Theory (Maslow), 184
- Networking, impact, 166
- Networks
impact, 56–58
social networks, tacit knowledge (relationship), 227–230
- Neuroscience, 272
perspective, 269
- New Product Development (NPD), 234
- Non-profit organization, Action Plan (creation), 172–173
- “No Reply” email practice, 266–267
- Normative behavior, 209–210
- NOVA, celestial time scale, 18
- O**
- Open innovation, 188
- Open office, 51–52
- Operational Distance, 7, 44
- Communication D, 80–83
- importance, 98

- Operational Distance (*Continued*)
- management, 235
 - Multi-Load, 83–85
 - Readiness Distance, 85–86
 - reduction, 131, 236–237
 - tactics sample, 163, 164f
 - representation, 79f
 - strategic focus, 159
 - Virtual Distance
 - component, 69, 79–86
- Opportunity cost, 156–157
- Orbital Boom Sensor System (OBSS). *See* NASA
- Organizational Citizenship, 13, 121
- impact, 111
 - Virtual Distance, relationship, 107f
- Organizational Citizenship Behavior (OCB)
- KPI definition, 101f
 - trust, relationship, 107f
- Organizational
- communication channels, employee dissatisfaction, 37
- Organizational Distance
- Physical Distance
- component, 71, 76–78
 - problems, 77–78
- strategy, experience (realignment), 158–159
- Organizational distance, Virtual Distance (relationship), 106–108
- Organizational goals, accomplishment, 197
- Organizational Learning, 121
- KPI definition, 101f
- Organizational outcomes function, 99f
- Virtual Distance
- Benchmark Data, 24f
- Outcomes (impact size), Virtual Distance Ratio (basis), 99f
- Outsourcing, 41
- impact, 64
- P**
- Palo Alto Research Center (Xerox Corporation), 230
- Paper/notebook/pen, usage, 261
- Paralinguistic cues, 201, 203
- Path Analysis, 111
- Performance degradation, Virtual Distance (impact), 2–3

- influencers, 46f
rank, 13t
reviews, usage, 155
- Perspective taking. *See* Temporal Distance
- Phone calls, usage, 180
- Physical Distance, 19, 44, 70–79
communication barriers, 63
components, 71
Geographic Distance, 71–75
importance, 98, 121
Organizational Distance, 71, 76–78
reduction, tactics (sample), 159f
representation, 70f
Temporal Distance, 71, 75–76
usage, 237–238
- Virtual Distance
component, 69
- Physical proximity, absence, 73
- Physical separation, 53
development, 67
- Port Authority of New York and New Jersey,
communications improvement, 88
- Practice, 264
- Prahalad, C.K., 186
- Predictive Virtual Distance
solutions, situational specifics (matching), 1
- PricewaterhouseCoopers (PwC), innovation survey, 112
- Prime Virtual Distance Principle, 68
- Prioritization analysis, usage, 153–154
- Process
effectiveness, 234
meaning, 236
Virtual Distance, impact, 238
- Process Improvement (PI) Group
Business Management Group, interaction, 142
CTO, interaction, 142
Employee Satisfaction, interaction, 143
players, 141–142
- Product development, Virtual Distance (impact), 238
- Productivity
erosion, 77
improvement, 184–185
- Project descriptions, list (expansion), 305, 307–316
- Project success, Virtual Distance
impact, 121
relationship, 110–111

- Project/work initiative, description, 307–316
- Provisioning, 161–163
- Purposefulness, importance, 267
- Q**
- Quality circles (QCs), 186
- R**
- Readiness Distance, 80, 85–86
problem, 180
reduction, 181
strategy, provisioning, 161–163
- Real-time analytics software, 126
- Real-time
communications, asynchronous communications (contrast), 176–177
- Recognition, usage. *See* Social Distance
- Recommendations, execution, 178
- Relationship dynamics, 87
relationship-based problems (work), 44
solitary relationship, 194
- Relationship Distance, 87, 90–91
minimization, 176
reduction, 169, 182
- strategy, seeding/ enhancement (usage), 166–171
- Reliability index, 297–298
measures, survey question numbers (contrast), 298f
- Remote, in-person (contrast), 9–14
- Remote work
ban, attempt, 72
percentage, performance rank (function), 20t
time, percentage, 18f
- Research and development (R&D)
reshaping, 186
- Return on investment (ROI) calculator. *See* Travel expenses
- Revisability/reviewability, email features, 205–206
- Rodman, Jeff, 211
- Roles, clarity, 13, 117–119
- Rotation. *See* Temporal Distance
- S**
- Sansone, Tom, 212
- Schleicher, Andreas, 289
- Scientific Management* (Taylor), 59
- Secrecy value systems, openness value

- systems (contrast), 88
- Secret of life, trust (relationship), 105
- Self-soothing, 252
- Self-talk, exposure, 167
- Senior management involvement, 236–237
- Virtual Distance, impact, 238
- support, 234
- Sequentiality (grounding tool), 204
- Service Management, 142
- Shared context, importance, 160
- Shared mental model, 94, 215
- Shared purpose, absence, 283–284
- Short-term tactics, usage.
 See Virtual Distance
- Silent Generation, 19, 285
- Silo behavior, affiliation-related disconnects (impact), 22–23
- Simultaneity (grounding tool), 204
- Six Sigma, 186
- Skill-based competencies, 25
- Skill sets, usage, 178
- “Slow thinking,” 4
- Smart digital devices (SDDs), 50
- developments, 38
- Social Distance, 87, 91–93, 131
- reduction, 182
- strategy, 171
- strategy, recognition (usage), 171–172
- Social gaps, impact, 67
- Social network, 227–228
- Social Network Analysis (SNA), 58
- Social network maps construction, example, 128f
- Social networks analysis, usefulness, 146
- innovation, relationship, 228f
- participation, 214
- tacit knowledge, relationship, 227–230
- Social presence, 201, 202f
- reduction, 113
- Social skills, unavailability, 72
- Socio-emotional structures, reshaping, 260
- Soul-based leader, becoming, 267
- Soul-based leadership, 4, 59, 213, 239
- Cousins example, 253–254
- emphasis, 265
- helicopter example, 240–241
- iPad example, 243–244

- Soul-based leadership
(Continued)
- model, 247f
 - neuroscience, 241–243
 - practice, 259–267
 - principles, 237, 249–259
 - requirement,
 - importance, 241
 - video example, 252–253
- Spillover effects, 110
- Stage Gate Process, 236
- “Statement on the Purpose of a Corporation”
(Business Roundtable), 147, 148
- Stereotypes, creation, 89
- Storytelling, teaching
(soul-based leadership principle), 251–252
- Strategic Impact, 121
- KPI definition, 102f
 - Virtual Distance,
relationship, 119–120, 120f
- Strategies
- discovery/reformulation.
See Interdependence Distance.
 - experience, realignment.
See Organizational Distance.
 - layering, usage. *See* Cultural Distance.
- optimization. *See* Multi-load strategy.
- recognition, usage. *See* Social Distance.
- seeding/enhancement, usage. *See* Relationship Distance.
- Strategies/tactics. *See* Virtual Distance
- contrast, 154–155
 - implementation ease/
sustainable impact, 150
- Success
- KPI definition, 100f
 - prediction, 1
 - Virtual Distance,
relationship, 110f, 120–121
- Survey questions, reliability measures (contrast), 298f
- Survey research
- methodology, 295
 - construct, clarity, 297
 - reliability, 297–298
 - sampling, 300–301
 - validity, 298–299
- Systemic problems,
perception, 148
- T**
- Tacit knowledge exchanges,
enhancement, 237
- exchange, 229

- social networks, relationship, 227–230
- Tactics. *See* Strategies/tactics
- sample, 159, 159f. *See also* Operational Distance.
- short-term tactics, usage. *See* Virtual Distance.
- Taking turns, practice, 265–266
- Talking head, problem, 73
- Taylor, Frederick Winslow, 59–60, 61, 187, 191
- Taylorism, 60
- Teams
- compensation, 185
 - descriptions, 317–332
 - development. *See* Ad hoc cross-functional team development.
 - dysfunction, 191
 - history, 183–186
 - learning, occurrence, 112
 - members
 - contributions, 92
 - Geographic Distance/Virtual Distance, 74
 - rotation, 178
 - metaphor, 190
 - meta-teams, term (usage), 197
 - redefining, 183
- term, misnomer, 183
- Technology. *See* Communications; Virtual Distance
- advances, 40
- implications, 213–215, 221
- importance, 57
- incursion, 289
- selection assessments, questions (usage), 216f–218f
- usage, 199, 233, 245–246
- Telecommuting, 41
- Teleconferences, focus, 213
- Teleconferencing, usage, 211
- Temporal Distance
- minimization, 176
 - Physical Distance
 - component, 71, 75–76
 - strategy,
 - rotation/perspective taking, 157
- Text messaging, usage, 202–203
- Theory of Mind (ToM), 247, 255–259
- Theta wave state, 225
- Threshold Generation, 25–26
- Thunberg, Greta (generational differences), 21
- Time zones
- differences, 157

- Time zones (*Continued*)
 overcoming, 75–76
 understanding, 177
- Travel expenses, Virtual Distance ROI calculator (usage), 155–157
- Trust, 12
 cognitive trust, affective trust (contrast), 102f
 coworker trust, 103–104
 fragility, 102
 impact, 111, 114
 improvement
 best practices, 219f–220f
 face-to-face (F2F) meetings, impact, 176
 increase, Virtual Distance reduction (impact), 121
 influence, 107
 innovation, relationship, 114f
 KPI definition, 101f
 Organizational Citizenship Behavior (OCB), relationship, 107f
 propensity, 103
 secret of life, 105
 Virtual Distance, relationship, 102–105, 103f
 benevolence/integrity/ability, 104f
- Trusting relationships, development, 104
- Turnaround times, understanding. *See* Communications
- U**
- Uncontrolled Virtual Distance, impact, 46
- United Nations, Conference on the Commission on the Status of Women, 4, 6
- Universities, Results Session (usage), 169–170
- User-friendly platforms, technology (usage), 233
- V**
- Values stack, representation, 88f
- Videoconferences
 focus, 213
 usage, 170, 180
- Videoconferencing, 212–213
 avoidance, example, 250
 platforms, evolution, 199
- Video contact, 50
- Virtual communication
 blockade, 90
 modes, 205f
- Virtual Distance, 1
 clarity, 117–119
 relationship, 119f

- components, 69
control, absence, 6–7,
 23, 25
creation, 72, 249
data, examination, 11
department/divisions, 3t
Employee Engagement,
 121
 relationship, 116–117,
 116f
estimation
 example, 144f
 tool, 136f–138f
factors, 38
 differences, 121
 priorities, 151t
framework, 301–302
geographic separation,
 impact, 55
impact, 101, 141,
 237–238
implementation, case
 study, 8–9
importance, 4
increase, open office
 spaces (impact),
 52
industries, 30t
initiatives, 199–200
innovation, relationship,
 112–116, 115f, 232
learning, relationship,
 111–112, 111f
low level, 54
 email, usage
 (reduction), 125
management, 74, 147,
 149f
requirements, 182
strategies,
 prioritization,
 181
 understanding,
 181–182
Map (photo), 124f
mapping, 123
 case study, 127–134
 information, 146
map, update, 132f
measurement, 97
meeting, 67
minimization, short-term
 tactics, 176–181
neuroscience perspective,
 269
notes, 295
Organizational
 Citizenship, 121
 relationship, 107f
organizational distance,
 relationship,
 106–108
organizational outcomes,
 function, 99f
overcoming,
 cross-functional
 teams (formation),
 178–179
Prime Virtual Distance
 Principle, 68
priorities, setting,
 149–150
problems, 267–268

- Virtual Distance
(Continued)
- project success,
 - relationship, 110–111
 - ratio, 47f
 - reassessment, 173
 - reduction, 25, 169, 181, 259
 - impact, 121
 - rescoring, 131
 - rise, 40–48
 - road/path, 37, 46f
 - ROI calculator, usage.
See Travel expenses.
 - roles/goals/vision,
 - clarity, 117–119
 - satisfaction, relationship, 108–110, 109f
 - scores
 - assignation, 127
 - example, 128–133, 130f
 - usefulness, 146
 - solutions
 - roadmap, 154f
 - situational specifics,
 - matching, 1
 - Strategic Impact,
 - relationship, 119–120, 120f
 - study, methodology, 98–102
 - success, relationship, 110f, 120–121
 - technology
 - implications, 213–215, 221
 - usage, 199

- term, coinage, 50, 64
 - titles, list, 32t–36t
 - trust, relationship, 102–105, 103f
 - benevolence/integrity/ability, 104f
 - virtual work, relationship, 61, 63
- Virtual Distance Action Plan, 15, 123
- building,
 - strategies/tactics (prioritization), 150
- critical success factors, implementation, 166
- development, 174
- implementation, 174
- Virtual Distance
- Benchmark Data
 - countries
 - list, 4t
 - map, 5f
 - generation percentage, 20f
 - generations, examples, 24f
 - organizational outcomes, examples, 24f
- Virtual Distance Index (VDI), 45, 95, 98
- Analysis, 152
- Assessment, 123, 153, 165, 172
- application, 172
- usage, case study, 152–154

- Virtual Distance Leadership Model, 239
- Virtual Distance Management Plan, template, 175f
- Virtual Distance Map creation, 124 example, 143f
- Virtual Distance Mapping, 121, 134 self-context, 134–135 solutions, demonstration, 146 usefulness, 146
- Virtual Distance Mapping Process, steps, 126
- Virtual Distance Model, 1, 18 overview, 45f representation, 69f understanding, 95
- Virtual Distance Path, 115f
- Virtual Distance Ratio, 47, 98 basis, 99f
- Virtual Distance Solution Roadmap, 154, 154f
- Virtual distancing, research, 6
- Virtual ensembles, 192–197
- Virtual presence, actual absence (comparison), 73
- Virtual projects, members (interaction), 194
- Virtual teams, management (interaction/effects), 42
- Virtual work challenges, 38 communications, 81 hierarchy, obsolescence, 43 leader perspective, 41–42 organizational/strategic implications, 42–48
- Virtual Distance, relationship, 61, 63
- Virtual workers, emotional ties, 191
- Virtual workforce collaboration, 202–203 ensembles, relationship, 196f problems/success, examination, 68
- Visibility (grounding tool), 204
- Vision, clarity, 117–119, 234–235
- Virtual Distance, impact, 238
- Visual cues, 72
- Voice exchanges, focus, 179 tone, 201
- W**
- Watson, James, 104–105, 112–113
- Webinars, 14

- Westwell, Martin, 84, 241, 293
interview, 269–292
“What,” 3, 26–28, 306
“When,” 3, 18–26, 306
HOME-based view, 22
“Where,” 3, 306
attention, 3–18
remote, in-person (contrast), 9–14
Wilkins, Maurice, 105, 112–113
Women, Virtual Distance (importance), 6
Work
coordination, 176–177
guidelines, 176–177
day-to-day issues, 44
globalization, 64
initial field work, problem patterns, 43f
location-based challenges, 44
questions, 109
relationship-based problems, 44
remote work, 11f, 13t
scenario, 261
structures, change, 195, 197
values, variation, 89
virtual work
leader perspective, 41–42
organizational/strategic implications, 42–48
“when,” 19
“where,” 19
yin/yang, 58–61
Workers, home office
movement (case study), 14
Workforce, virtualization, 190
Workload, excess, 163
Workout sessions, 194–195
Workplace, examination, 186–192
World Is Flat, The (Friedman), 40
- Y**
Y2K problem, 187
Yin/yang, concept, 59
- Z**
Zoom, usage, 250

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