

## DATA IS ONLY

half the story

Fusing emotions with data & Al

How emotions can change your business

Accelerating adoption

Why your mindset matters

Personalizing HIV prevention

Building your bond with pets

1% Better every day: The power of small wins

## How emotions

## CAN CHANGE YOUR BUSINESS

We all know that gut feeling we get sometimes? That's our emotions at play! And guess what? They're not just for personal decisions – they're crucial in business too.

This volume explores how businesses can tap into this powerful force by infusing emotional intelligence into their Al. Imagine Al that not only analyzes data but also understands the human element – the feelings behind customer feedback, the motivations of your team, and the emotional impact of your decisions. By bridging that gap between logic and emotion, businesses can make choices that truly resonate with their customers and employees.

It's about creating AI that's not just smart, but also empathetic, leading to stronger relationships and greater success. Ready to discover how emotional intelligence can revolutionize your business?

Let's dive in!

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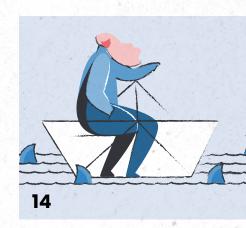
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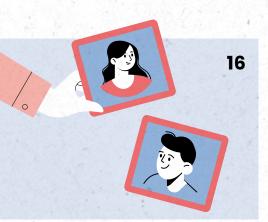
## 1% Better every day: The power of small wins

When your health recharge is more than just taking steps













### EDITOR'S NOTE

## **Data: The treasure trove** and the human touch

Organizations will get more out of Al if it comes from the heart

We've all heard it: Data is the new oil. It's a powerful resource, capable of unlocking secrets that can revolutionize your business. But while data can provide invaluable insights, it's equally important to remember the human element.

Artificial intelligence (AI) is a powerful tool for extracting patterns and knowledge from vast datasets. However, as Vijayalakshmi Murali, a senior UX designer at Fractal, points out, "If AI systems don't understand emotions, they'll miss the nuances that drive real business success."

In this volume, we delve into the science of decision-making. It's not just about crunching numbers; it's about harnessing the power of human emotion to turn data into actionable insights.

At Fractal, we're building AI systems that are emotionally intelligent, capable of understanding and responding to human behavior. As, Ramchand Matta, a design strategist at Fractal, explains, "AI is more than just algorithms. It's the bridge between data and human connection."

Further, we recently partnered with a government health agency to promote healthier lifestyles. By combining data from smartwatches with a deep understanding of human behavior, we were able to achieve significant results.

So, join us as we explore the intersection of data, technology, and human emotion. Discover how AI is transforming industries and shaping our future.

I hope you enjoy the read.

## Meet the team

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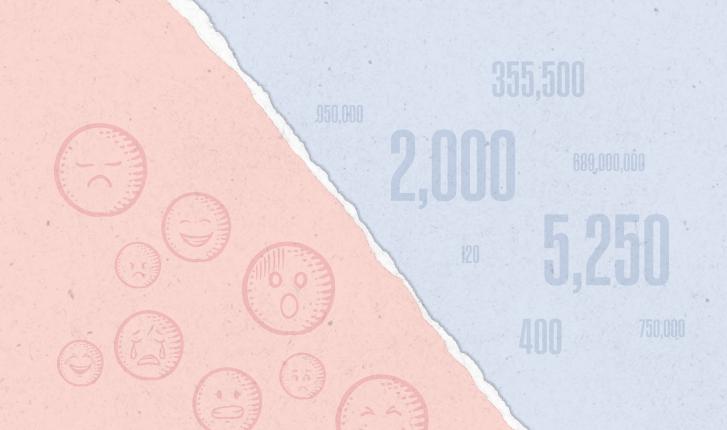
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## How emotions

## CANCHANGE YOUR BUSINESS

As an enterprise leader, every decision you make can shape your organization's future. Your data provides hundreds of metrics, from website clicks to market sentiment and customer engagement, to help you get it right. But what about the emotions behind those numbers?

e may like to think our choices are based on logic, but research points to a significant emotional influence on every decision we make. That's everything, from purchases – where 95% of decision-making takes place in the subconscious mind – to executive decisions. Which means that if you're not accounting for the emotions that drive decisions, you're only operating with half the story.

### Let's look at what drives a successful decision:

### 1. STIMULUS

It starts with a stimulus – a market challenge or opportunity, for example, that triggers the need for a decision.

### > 2. GOALS

As a business leader, you assess this stimulus against organizational goals and your own intrinsic ones, which are informed by the context you operate in and the mental models you rely on.

### > 3. FMOTIONS

Emotions act as a bridge, providing the instinct, empathy and human insight that turns cold information and smart, actionable choices. Years of experience only hones your context further to make this decision an informed one.

## > 4. DECISION

Your final decision is heavily influenced by how well you have understood and leveraged those emotions.

But here's the catch: many decisions fail because they miss out that critical emotional step. Without emotional intelligence as well as data, there is a risk of making choices that are too mechanical and disconnected from the people they affect – employees, customers and stakeholders.

"If the AI systems we build don't engage with emotions, they will be disconnected from the real dynamics that drive business success," explains Vijayalakshmi Murali, senior UX designer at Fractal. "Commercial success in AI isn't just about scaling technology – it's about creating experiences that resonate on a deeply human level. That's where the real value lies."

## Al with heart, not just logic

So, why are so many businesses missing that emotional connection? Unfortunately, most AI solutions available today focus on efficiency. They're great for automating tasks, but automation isn't enough to transform your business. Imagine what you could achieve with AI that understands the emotional state of customers or employees and adjusts its responses in ways that resonate deeply, beyond basic logic.

"Foster collaboration & co-creation with employees and customers in your Al journey. Getting adoption is as much a battle as developing the Al models. Keeping stakeholder groups in the objectives of augmenting work with Al can help excite them, rather than cause fear & anxiety," says Terri Bresenham, Co-founder Forte Health Advisors.

"The magic of Al design happens when you fuse logic with empathy, it's in this intersection that Al becomes more than a tool – it becomes a companion for decision-making."

That isn't as big a shift as it may sound. Think about some of the things that enterprises typically measure as KPIs. Things like brand loyalty, patient trust, user confidence or optimism. By reporting these only as numbers, we miss their emotional context. But changing perspective and recognizing these KPIs as EPIs – emotional performance indicators – can unlock huge strategic value.

Fractal is designing AI systems that embed emotional intelligence to reflect the complexities of human behavior and decision-making. One recent example is a fitness app developed as part of a government project to encourage people to exercise more. 'exercise more'. Our research showed that app users are more likely to measure their progress against their own past performance, not against those of peer group members or influencers. By asking them to achieve 1% more than they did the day before and combining that with an emotionally connected visualization of that goal, the app engaged more users and kept them active.

"The magic of AI design happens when you fuse logic with empathy," says Jieya Rawal, designer and researcher at Fractal. "It's in this intersection that AI becomes more than a tool – it becomes a companion for decision-making."

## Emotions drive enterprise success

For enterprises, this means AI that helps leadership make better decisions that are empathetic, strategic, and aligned with human values.

Here's a fun fact: in terms of demographic data like gender, age, celebrity and living in a castle, King Charles III of the United Kingdom and rock star Ozzy Osbourne are identical. Yet if you used the same messaging for them both, you'd be setting yourself up to fail. A deeper understanding of what drives each person – the cheapest deal, the best benefits or exploring the latest products, for instance – is the key to getting the best from the relationship. In fact, when customer satisfaction issues are resolved through emotionally intelligent responses, businesses see a 15-20% boost in retention.

"Blending AI with design and behavioral science is a paradigm shift in enterprise decision making processes" explains Raj Aradhyula, chief design officer at Fractal. "AI helps us solve problems efficiently, but it's our understanding of human behavior that makes those solutions truly effective. Together, they allow us to identify the real problem and design solutions that actually work for people. It's a great reminder. solving problems isn't just about technology or innovationit's about understanding human behavior and creating solutions that fit seamlessly into people's lives."

Let's not forget employees either. Too often, they are left to struggle with dry dashboards full of numbers that make it difficult to call out insights and make sound, impactful choices. But research shows that when leadership teams factor emotional intelligence into their decisions, they can boost employee engagement by 30%.

"At Fractal, we see AI as more than algorithms," says Ramchand Matta, design strategist at Fractal. "It's the bridge between raw data and the emotional intelligence that drives real business connections. By designing around the user, we avoid auto-generated calendars that fill executives' days with backto-back meetings. Instead, we create an emotionally intelligent system that factors in employees' needs to reflect on conversations with clients and take comfort breaks and can detect signals

of burnout. That's why we design Al from an understanding of what users need to perform at their best, and we train it to deliver that empathy."

## Why emotional Al is essential for board leaders

Data-driven decisions are valuable, but emotionally aware decisions are transformative. That's why a board leader's choices need to account for both the practical, and emotional dimensions for their organization.

By aligning data with human emotions, you can make sure your strategic decisions are more impactful.

You can drive deeper relationships with customers and employees by nurturing emotional connections, not just transactions.

An Al system that fails to do that, risks missing the mark in moments that matter most.

"Business leaders recognize that their income, membership and customer growth are closely linked to how their technology engages with employees as well as customers," comments Vijay Raaghavan, head of enterprise innovation at Fractal. "This is about designing AI that goes beyond the transactional. It's about creating systems that understand human experience in ways we never thought possible. By designing AI that makes communication fun, friendly, and intuitive - like the workplace collaboration platform Slack, for example - you can build a system that will compete with the best in the world."

## Building the future of emotional Al

That formula – Stimulus > Goals >
Emotions > Decision – is not just
theoretical. It's the cornerstone of how
Fractal is reimagining Al for enterprises.
We are creating Al that doesn't just

analyze data, but integrates human emotions at critical decision points, empowering leaders to make betterinformed choices.

"Our design philosophy is rooted in one principle: Al that understands, empathizes, and ultimately transforms how we work, live, and connect," says Anushka Ashok, behavioral science lead at Fractal. "By designing Al in line with the needs, context, and user goals, we can create a future where emotions meet data. One in which Al completes the decision-making cycle and becomes an invaluable partner in business leaders' decision-making, enabling better outcomes, stronger connections, and sustainable growth."

Aligned to this thought, Julie Jensen-Hall Global E2E SC D&A Director, Mars Pet Nutrition shared, "When most people think about AI, visions of a futuristic fully automated control room with robots come to mind. While that may be true in some industries, Consumer Goods Supply Chain Al is more realistic and simplistic in its approach. At Mars, the heart of our supply chain is getting our pet parents quality product at the right place and time. Mars supply chain teams and associates are central to making decisions that balance cost, cash and service to serve our customers"

Al in supply chains is not about replacing that human decision-making but rather enhancing it with speed, precision, and new insights. Whether it's a more optimized truckload to reduce carbon emissions with less trucks driven or an optimized demand plan which eliminates over production and waste, Al augments human capabilities.

As leaders, it's our job to ensure that Al serves the human element at the core of our supply chains - empowering our teams and improving pet parent experiences. Emotions are strategic in this process. Leaders need to guide our teams through the technological

shift with empathy and transparency, ensuring everyone feels supported and part of the transformation.

We need to ensure our teams are successful in this journey by upskilling associates in the Al framework using our in-house Mars University to remove the shroud around what Al is and isn't. When we understand the technology and what's in it for us and our pet parents, it addresses the emotional response of anxiety and fear with empowerment instead.

Our Mars Central Pet Nutrition Data and Analytics team is also a facilitator of this journey. We are not just building a data foundation and products; we are fostering an environment of trust and transparency where our functional peers can leverage our skillset to demystify and co-create true digital transformation.

"This human-centric approach ensures that AI is a partner in delivering sustainable, impactful solutions that benefit both our people and the planet. By listening closely to the needs of our business and pet parents, we are creating future-proof solutions that are as emotionally intelligent as they are data-driven."

Over the next few years, the way enterprises embed emotions in their measuring, decision-making and user experiences will become a key competitive differentiator. Many have already begun this journey, and for those that haven't, now is the time to start. There are so many ways that emotional intelligence in Al can transform the enterprise. The key question is: How could it transform yours?





### **Contributors:**



Julie Jensen-Hall Global E2E SC D&A Director, Mars Pet Nutrition



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**Vijayalakshmi Murali** Senior UX designer, Fractal



## ACCELERATING ADOPTION

## Fractal helps a large US insurer to build relationships and boost productivity

hen the US government mandated to move insurance agents from an exclusive model, where they would only sell a specific company products, to an independent model, where they could sell any company's products, a large US insurance company knew there would be a major shift in working practices.

### IN BRIEF

A large US insurance group developed a new technology to help improve relationships between sales managers and agents

Adoption was very low as sales managers perceived they were losing control of decision-making

Fractal conducted extensive research to identify problem areas and understand what is important to all stakeholders

The tool was redesigned to emphasize transparency and control, and focus on business goals

Within a month of relaunch, 75% of users had adopted the tool and its value was recognized

The insurer developed an Agency Segmentation tool to help the sales team identify and prioritize their agents. It hoped this would enhance relationships between sales managers and agencies and boost productivity. However, despite launching multiple versions, introducing usage mandates, and embarking on training, adoption among the 150 sales managers was low.

### **Understanding the issues**

The insurer turned to Fractal for help. Fractal's interdisciplinary team of specialists in Data, Design and Behavior Science, quickly recognized that the problem was not with the model alone, but also with how the sales managers perceived. It engaged the company's stakeholders at various levels to identify problem areas, vision for this program and their business goals. Immersion with over 20 sales managers was conducted to understand user context and how they interacted with their agencies. Fractal also ran co-creation workshops with sales managers, to understand how they processed important information that led to the right decisions regarding their agents.

The insights gained about their decision-making process, were crucial for the final interventions incorporated in the user interface. For sales managers, nurturing relationships with agencies is crucial

to their business goals, but they felt the tool was taking away their control over the decision-making process. They had developed a great relationship with their agents and wanted to manage these client relationships their way, while maximizing revenue.

Management, however, wanted a more structured, data-driven approach to agency engagement, focused on profitability. Both groups wanted a sense of control.

### A bridge to greater control

Fractal's solution was to reposition the tool as a bridge that could increase sales managers' control over their relationships with their agencies. A new workspace frontend interface was redesigned to tie segmentation to their business goals and bring in transparency and control. The tool now encourages exploration and induces social proof to increase engagement. These changes were accompanied by targeted communication via emails, SharePoint, and chat.

### Remarkable results

The results have been remarkable, with 75% of users adopting the tool in the first month since relaunch. It brought the business and the sales managers to focus on the right agency at the right time. Sales managers are now recognizing its value and making the most of the insights it provides. One said: "Based on my prioritization, I had considered one particular agency as not important. But the Agency Segmentation tool has segmented it as high potential, and I am now engaging with them more often."

## AI IN Design

## 1843 VISIONING CREATIVE TECH

Ada Lovelace, the world's first computer programmer, works wonders with Charles Babbage on his design for his ambitious Analytical Engine—a partially built mechanical computer. A brilliant mathematician, Ada's vision for creative tech sets the stage for modern Al and design integration.

## 1950 PUTTING MACHINE INTELLIGENCE TO THE TEST

Alan Turing's Turing Test puts machines to the test of 'thinking' like a human, igniting early concept of human-like interaction in systems.

## 1960s BASIC DESIGN CONCEPTS POP UP

Designers toy with early design ideas, focusing on creating simple tools like typewriters and calculators. Not to be left behind, AI scientists develop early problem-solving programs. AI and design progress together!

## 1966 CONVERSATIONAL AI COMES KNOCKING!

Joseph Weizenbaum's ELIZA, an NLP system, mimics a psychotherapist, simulating human-like conversations! The dawn of conversational Al sets the tone for how you interact with a machine today.

## 1973 THE GRAND DEBUT OF HUMAN-COMPUTER INTERACTION (HCI)

Xerox PARC develops the first Graphical User Interface (GUI) — bringing windows, icons, and a mouse into the picture. The result? More accessible and intuitive tech, forever changing how you would interact with a computer!

## 1976 DESIGN PRIORITIZES YOUR NEEDS, DEAR USER!

The concept of userfriendly design takes root designers start putting you, the user, at the center over machine capabilities.

## 1984 Macintosh Makes Design Delightfül

Can computers be fun and simple too? Thanks to the sleek design and interface of Apple's Macintosh bursting on the scene, yes, they can, ergo proved!

## 1986 AI FOR INTELLI GENT HEALTHCARE

With each (albeit confusing) smart medical suggestion for doctors, MYCIN, the AI system takes a giant leap toward intelligent healthcare.

## 1991 THE INTERNET ERA STARTS WITH A BANG!

The World Wide Web makes information accessible to you anytime, anywhere. Designers join the bandwagon, making website interfaces work and look pretty. Enter the internet era, with a Bang!

## 1994 Which Book To Read? ASK AI!

Amazon begins using Al to recommend books, with designers crafting customized experiences for you for the perfect pick!

## 2000 SMART SEARCH IS ON!

Google becomes your buddy, condensing the world of your queries at the click of a search result. Talk about smart search!

## 2007 The Touchscreen Magic

The iPhone revolutionizes design, focusing on touch-screens and simple apps.

## 2008 Music to your ears - with al!

Spotify's AI begins suggesting music based on your tastes—designers and AI join hands to recommend what would suit your music buds!

## 2011 AI SAYS HELLO! TO YOU

Siri, the first voice assistant, is launched on iPhones, making talking to Al mainstream.

## 2014 AI ENTERS YOUR DAILY LIFE

Amazon Alexa and Google Assistant usher AI into your daily life-from controlling music, lights and more. Designers begin creating voice-first interfaces for you, ensuring that your AI sounds friendly to you, quite literally!

## 2016 AI POWERS GRAPHIC DESIGN

Adobe Sensei accelerates graphic design with AI, enabling one-click background removal.

## 2017 TESLA'S SAFE AI-DRIVE

Tesla launches semi-selfdriving cars with Al-powered safety features.

## 2018 Fractal's ai for Behavioral Change

Fractal Analytics acquires Behavioral Architectural firm Final Mile, melding behavioral science with Al and data science capabilities to drive sustainable behavior change.

## 2019 THE DAWN OF FRACTAL EXPERIENCE

Fractal builds a global design and innovation capability, Fractal Experience, to solve complex challenges with human-centered design, creating innovative solutions, accelerators and services for business transformation. They specialize in design thinking, product design, fostering creativity to address dynamic, real human needs, ensuring user trust in Al.

## 2020 AI CO-DESIGNS WITH DESIGNERS

Generative AI tools like DALL-E and MidJourney begin creating art and designs, partnering with designers and creative professionals for ideation. But hey, the designer will still call the creative shots!

## 2021 BE AI-SAFE!

Companies like Google and Microsoft prioritize ethical AI, ensuring AI is fair, safe and understandable for you.

## 2022 Conversational AI in full form

ChatGPT demonstrates Al's prowess in natural, Al conversations, making your complex tasks easy.

## 2023 AI FUELS YOUR CREATIVE FLIGHT

Adobe Firefly empowers you to create images with AI, democratizing creativity.

## 2020 Onwards DESIGNING A CREATIVE FUTURE WITH AI

Onto the future, Al and design will become best buddies!

Al will grow more emotionally intelligent and empathetic to enrich your experiences. The double team of designer and Al collaboration will automate your redundant tasks, empowering you to unleash your creative genius with an ethical core. Al-driven design will be the Genie for use cases across the board.

Interview: Terence Mauri

## WHY YOUR

## mindset matters



Terence Mauri, founder of the future trends think tank Hack Future Lab and author of 'The Upside of Disruption,' says the future isn't just about tech or trends. It's about mindsets and choices, too.

Today's leaders navigate an increasingly complex and volatile world that changes by the minute, facing uncharted forces from Al-driven disruption to talent scarcity and geopolitical risk. Yet – according to Terence Mauri – we often overestimate the risks of bold decisions and underestimate the downside of standing still. We spoke to Terence to find out more about this and to hear more about his new book, 'The Upside of Disruption'.

## Tell us about 'The Upside of Disruption' and what led you to write it.

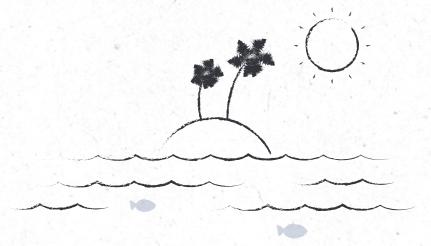
I feel that, as humans, we crave the comfort of certainty. It's like a warm blanket: It makes us feel safe and secure. While that's a good thing, it sometimes means that we miss opportunities: The opportunity to renew ourselves, the opportunity to grow, the opportunity to eliminate something. That's not working for us on a business level or a personal level. So, the big idea of the book is that when uncertainty is high and volatility is high, not taking a risk is a risk.

## How do business leaders traditionally respond to disruption? How can this inhibit success?

When we think of disruption, we automatically think of change, and we are often resistant to that. I want to reframe the word disruption a little bit. For me, disruption is a source code for learning, for renewal and for courage over conformity. What I mean by that is when we have courage, we embrace ideas, new ways of thinking and new ways of working that challenge the status quo. When we have cultures or mindsets of conformity, we reject ideas that challenge the status quo. So, whether they are working in politics, public sector, non-profit or the private sector, I think everyone can learn to reframe their relationship with disruption and look at it as a way of taking ownership of their future.

In your research, what were some of the most surprising or counterintuitive insights about the companies or leaders who thrive in disruptive environments? What I discovered is that, despite the proliferation of Al and automation technology, a lot of the way we work still needs to evolve. For example, two out of three people surveyed said they were still over managed and under-led. Moreover, one in two workers said that they did not get to put their top skills to work in a meaningful way which seems like such a wasted opportunity and wasted talent. We also uncovered the growing issue of 'boreout'. Boreout is the opposite of burnout - it means cognitive underload and it is on the rise. In fact, there was an example of an employee in France successfully suing their company for boreout.

Another counterintuitive finding was that most organizations right now are prioritizing what we refer to as 'cold Al' - that is Al that is laser focused on efficiency optimization and profit maximization. This is often at the expense of well-being and humanity. Of course, it is very logical for CEOs to invest in AI, but they should really be looking at warm AI – technology that provides both efficiency and empowerment. Yes, it's about cost reduction, but also human maximization. I think it's a really interesting finding that isn't really being discussed by businesses at the moment.



## Can you share some actionable strategies that help harness the upside of disruption?

I think one of the most interesting ones is to harness a reductionist mindset. We're hardwired, especially in business, to add complexity and bureaucracy to everything we do. Right now, four billion pieces of paper are handled every day and one in three meetings are considered a complete waste of time, costing organizations billions in lost productivity, lost talent and lost engagement.

Embracing a reductionist mindset means we let go of old ways of working and old ways of thinking and detox, declutter and delete. It allows us to harness the upside of disruption and refuse to add complexity for the sake of it. It allows us to do more meaningful work, to feel more empowered and to solve challenges that make a difference to humanity.

## You say good leaders learn, but great leaders unlearn. Can you explain what you mean by this?

As the late futurist Alvin Toffler said, over 50 years ago, "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn." Unlearning and relearning are blind spots in most organizations, but unless we've got an unlearning strategy to let go of some of these old ways of thinking or working, we end up spending most of our week on bureaucratic work rather than intelligent, value-creating work.

The bottom line is, if we don't unlearn, we're not agile. It means that we're spending more time ticking boxes and less time learning at the speed of the market or learning at the speed of the customer.

## Tell us about what you describe as the 'future readiness' muscle. How can leaders benefit from strengthening this?

To me, this is about never underestimating the huge power of thinking like a kid. Kids are born future-ready. They are agile, they embrace failure. They play, they have fun and they never stop learning. They're curious and they're always experimenting and iterating. So how can we bottle mindset as adults? I don't mean act like a kid. But I think we can all benefit from taking wisdom from our children – the way that they bounce back from a failure and keep going, the way that they show resilience in the face of adversity, and the way that they are passionately curious. These are all future-ready skills.

## What role do emerging technologies play in driving disruption?

Al is a cross-sector disruptor.
It's disrupting every vertical and
every industry. It is supercharging
blockchain, energy storage,
automation, robotics, DNA sequencing
and fusion power, to name but a few.

We are also seeing steep declines in the cost of Al. It is halving every four months which is up to six times faster than the semiconductor market. Jensen Huang, the CEO of Nvidia, says technology has now achieved a positive feedback loop where Al is designing new Al and is advancing at the pace of Moore's Law squared.

There's no question that these technologies will play an important role in driving disruption. That said, one of the interesting dilemmas I've recently discovered is that, because of the electricity and cooling requirements, a hundred-word search using a generative AI platform uses half a liter of water – that's about 16 times more than Google search. It's

projected that AI data centers will be using up to 25% of global electricity in the not-too-distant future. This is a real blind spot. We can see a whole range of new challenges and risks emerging because of the pace of change and the pace of transformation.

## With remote work, AI and automation transforming industries, what skills or mindsets do you think will be most crucial for future professionals?

I take inspiration from the late psychotherapist Oliver Sacks, who spoke about the human need for bonding, belonging and believing. For me, this means we need a purpose. A purpose at work, but also a life purpose. That's like a light force in itself. It gives us focus, direction, energy and resilience. It's more important than ever in this age of Al and hybrid working where we suffer from dislocation and decentralization.

## What's one piece of advice you've personally adopted that has helped you navigate disruption in your own life or career?

I would say it is to be aware of the rubber band effect. The rubber band effect is this kind of bias. For example, when we read a new book or it's New Year's Eve, or we're trying to make some new plans and aspirations, our rubber band stretches and we have all these ideas, commitments and dreams.

Then day-to-day life takes over again: E-mails, meetings, friends, family commitments and so forth. Then the rubber band snaps back into place, and nothing actually changes. As a result, the gap between aspiration and action is often bigger than we'd like it to be.

To overcome the rubber band effect, it's important to start small. Focus on a one percent improvement every day and you can get a 37x gain within nine to 12 months.

If you had to summarize the core message of 'The Upside of Disruption' in one sentence, what would it be?

Not taking a risk is a risk. We always overestimate the risk of doing something new and underestimate the risk of standing still.

For our listeners/readers who want to dive deeper into disruption and innovative thinking, what resources, books, or thinkers do you recommend?

I think it is important to go beyond business and leadership books. Research shows that reading fiction strengthens empathy, self-compassion and imagination. These are muscles that we need to develop more than ever. A book that I've been reading recently is 'The Brooklyn Follies' by Paul Auster. It's a great book, all about some of the blind spots of humanity and how a lot of history does repeat itself in different cycles. I'm also really enjoying 'Slow Productivity' by Cal Newport. He argues that the antidote to this age of acceleration is to slow down and take more strategic pauses. We need to take more time for reflection and to do less so that we can do things better and protect our minds, our space and our time.

"I think we can all benefit from taking wisdom from our children – the way that they bounce back from a failure and keep going, the way that they show resilience in the face of adversity, the way that they are passionately curious."



## **Terence Mauri**

Adjunct Professor, MIT Mentor Founder of Hack Future Lab

Terence Mauri is a world
-leading expert on the future
of leadership, Al, & Disruption.
He is a highly acclaimed
Thinkers50 author
of The Upside of Disruption:
The Path to Leading
and Thriving in the Unknown
and is a visiting Professor
at IE Business School and MIT
entrepreneur mentor.





## PERSONALIZING HIV PREVENTION

## A user-driven framework to protect vulnerable individuals

ow do you control a disease that has a dynamic risk profile? That's the big question around HIV today. Over the years, the development of rapid testing, effective treatments and a range of prevention options has transformed the virus from a fatal disease to a chronic, manageable condition. We no longer need population-wide prevention strategies and the funding that went with them has been cut accordingly. But HIV still presents a serious health issue, especially to certain groups of society.

Today, HIV prevention is a three-fold challenge:

## 1. HIV risk is unevenly distributed and transient

New infections are higher in marginalized groups, such as female sex workers, transgender people and men having sex with men. But the risk is linked to certain activities, so it isn't the same for everyone, every day.

## 2. There's more choice when it comes to prevention options

Options range from condoms to pills and injectable treatments that can be taken daily, monthly or occasionally. It's difficult for health workers to figure out who needs what.

## 3. Effective prevention happens at the point of risk

People only need to take precautions when they're at risk, so they are unlikely to comply with a rigid prevention regime like taking a pill every day.

This is about helping vulnerable individuals to assess their risk, evaluate their options and use them effectively. It takes a user-driven approach, and Fractal has developed a framework to help.

### Driving a change in perspective

At Fractal, we have been advocating a data-driven, behavioral science perspective on HIV for over a decade. Now, our expertise in behavioral segmentation is helping to drive a shift towards a more user-centric approach to promoting prevention options.

Our framework for user-driven HIV prevention provides the tools to put that approach into practice. To develop it, we rigorously analyzed existing research. Then we conducted targeted interviews and workshopped our ideas with leading disease prevention bodies including the United States President's Emergency Plan for AIDS Relief, the Centers for Disease Control

and Prevention and the Bill and Melinda Gates Foundation. We also sought input from all stakeholders, including funders, ministries, implementers, non-governmental organizations and advocacy groups, to help finalize the framework.

## A multi-layered approach

Effective, user-driven self-care comes from collaborative decision-making and support. That's why Fractal's framework takes a multi-layered approach that recognizes the various elements at play, from health practitioners to cultural contexts.

"Fractal's framework takes a multilayered approach that recognizes the various elements at play, from health practitioners to cultural contexts."

## FRACTAL'S FRAMEWORK

It begins with three user contexts:

## → RISK ASSESSMENT

Accurately identifying risks and the need to mitigate them.

## → OPPORTUNITY EVALUATION

Selecting suitable methods to address the risk that has been identified.

## → EFFECTIVE USE

Building on the first two contexts to develop effective responses to those risks, vulnerabilities and prevention opportunities.

In each decision context, the framework translates overall objectives into individual goals for both service users and providers.

To enable a more nuanced understanding of HIV prevention behaviors, the framework also factors in three ecosystem levels:

## → INDIVIDUAL BEHAVIORS

Such as ability to cope with stigma, or perceptions of a prevention method's effectiveness.

## **→ INTERACTIONS**

The factors that impact the way users engage with their ecosystem while accessing HIV prevention services.

## SYSTEMIC INFLUENCES

The policies, system design and cultures that significantly influence ecosystem dynamics.

By combining the impact of all these elements – decision contexts and ecosystem levels – we can identify how they shape the demand for HIV prevention. This means that as well as supporting program monitoring, the framework allows programmers and funders to better understand prevention decisions and identify gaps to inform future planning.

## Al can open the dialogue

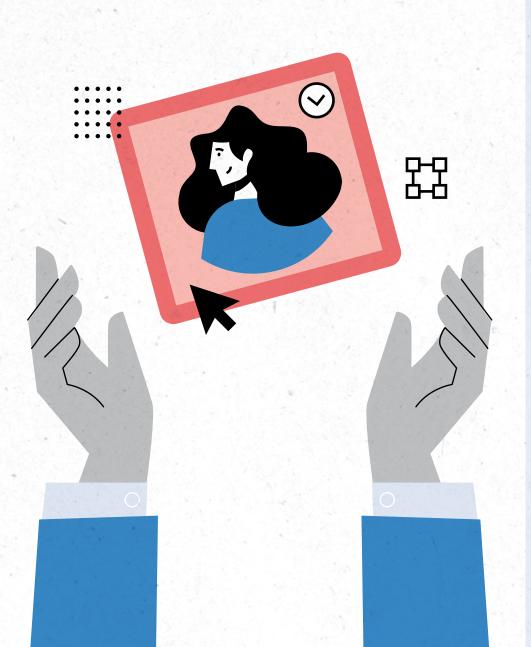
It will be interesting to see how HIV prevention organizations apply this framework – or parts of it – to reach more vulnerable people in the coming years. Technology isn't an essential part of those efforts, but we do see potential for AI to support them.

Something as simple as a discussion with an Al chatbot, for instance, could make HIV prevention more accessible and personalized. Initially, users could take this route to find out whether certain behaviors or situations put them at risk and understand their options for prevention. Enabled by behavioral models, the chatbot could provide a more personalized approach by understanding which prevention products the user might choose, suggesting the most appropriate options and predicting why, and under which conditions, those options might change.

Self-testing is another emerging area where Al could help to alleviate concerns about the stigma of visiting a clinic. In this context, a chatbot or app could provide a channel for users to find out whether they should get tested and to order that test for delivery to their home. Users might feel more comfortable discussing their test results and options with a chatbot, rather than in a clinician's office. Then they could decide on their next steps, such as ordering prevention products for delivery or booking an appointment at a suitable clinic.

Of course, it will take time for user-centered approaches like these to filter into HIV prevention programs. But our framework provides a tool to help organizations think about ways to apply this concept, and technology exists to support a multitude of approaches. With these tools, we hope that service providers will find effective ways to put control into users' hands – and enable a more productive dialog on HIV prevention with the people who need it most.

"Something as simple as a discussion with an Al chatbot, for instance, could make HIV prevention more accessible and personalized."



## **Ram Prasad**

CEO & Co-founder, FinalMile Consulting

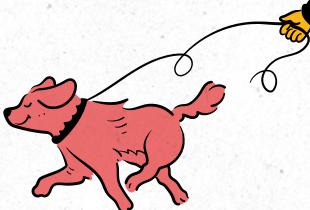
Ram is a pioneer in applied behavioral science. As CEO and co-founder of Final Mile, he has built a strong and diverse team of behavioral science and design experts. Today, he and his team are creating new value propositions by integrating Al, behavioral science and design to continue innovating in the field of behavior change.



## BUILDING OUR Bond WITH PETS

Ricardo Prieto-Ortiz, Omnichannel Brand director at Nestlé Purina PetCare Europe, has immersed himself in behavioral science so that he can design far more effective marketing strategies. We spoke to him to find out more, and to discover how AI is making his work easier both now and in the future.

## Interview: Ricardo Prieto-Ortiz



## Can you give us an overview of your priorities at Nestlé Purina PetCare Europe?

Our number one priority is to strengthen the bond that people have with their pets. We try to do this in many ways – with our products, through education and by partnering with other relevant organizations in this area.

## How important is behavioral science in achieving your objectives, and can you give examples of this in practice?

Behavioral science is hugely important. In fact, it's one of the reasons we chose to work with Fractal. With the help of behavioral science, we can overcome many of the challenges that we face in terms of our processes, our thinking and our people. It gives us a great opportunity to become much more persuasive in what we do.

For example, one of the biggest challenges we face is in getting people with senior pets to choose products that are better suited for them. Because of the work we have done with Fractal, we have established that this isn't a product

innovation problem, it is fundamentally a behavioral problem.

Hence, having that understanding helps us tackle our challenges a bit differently. It means we can better deliver on our mission to bring better products to pets to help them through their life journey and, as a result, enrich the bond between pets and their owners.

## Can you tell us a bit about this work you are doing with Fractal and the value you hope to realize as a result?

Fractal has made the process of applying behavioral economics to our work very easy to grasp. Just being able to bring it into our organization and make it easy for all relevant employees to understand is a major win. There's a famous quote that '90% of solutions can be found by clearly defining the problem statement'. At a large organization like Nestlé Purina, it takes a lot of time to alian stakeholders on our strategies. Fractal's work has really helped us to get that alignment so that we all agree where the problem lies - as I mentioned before, we

are working on a behavioral problem rather than a product problem.

Now we have a general acknowledgement of what needs to be done. And so that is already a huge milestone. Next, we can get into the execution part based on our learnings. Watch this space!

## Where does Al come in, and how does this add value to the business?

Al is present throughout the full cycle of activities that we carry out, so the value we can get from it takes many different shapes and forms. It helps us identify ideas and improve the efficiency of our processes. It gives the ability to make faster and better decisions. It can also help validate specific perceptions of marketing concepts.

For example, I think AI will fundamentally transform how we conduct our research in the future. The notion of synthetic personas, for example [virtual models that mimic a real person's characteristics and behaviors] can have a huge impact on our work. This is an opportunity that we are exploring currently.

## Are you finding any challenges in embracing AI? If so, how are you tackling them?

We need to get much better at understanding how to extract the value from Al. At the moment, our usage is very much at a surface level. At the moment, our usage is very much at a surface level. Simple things like better prompt engineering will help.

## What advice would you give to other businesses that are adopting AI, behavioral sciences and design in their businesses?

The adoption of behavioral science and AI can often challenge established ways of thinking. Its effective use requires a big shift in understanding – and this means buy-in from the top is essential to democratize its use throughout the organization. You need people who understand these principles, who see the value in it, and who are willing to endorse the results that come from it.

With AI in particular, there's still a lot of reluctance to adopt it. People worry what it might say about them if they admit they have used AI assistance. So top management need to make it very clear that it is not only OK, but often incredibly beneficial, to use AI tools. If we can make progress in these two areas – endorsement and adoption – then usage will exponentially increase.



"The adoption of behavioral science and Al can often challenge established ways of thinking. Its effective use requires a big shift in understanding – and this means buy-in from the top is essential to democratize its use throughout the organization."

## Ricardo Prieto-Ortiz

Nestlé Purina PetCare, Europe

Ricardo Prieto-Ortiz, Omnichannel Brand Director at Nestlé Purina PetCare Europe, has immersed himself in behavioral science to design more effective marketing strategies.



## 1% BETTER EVERY DAY:

The power of small wins

Creating emotionally intelligent fitness tech to boost health gains









Smartwatches and fitness apps promise to help us battle obesity and prevent diseases. But those daily targets our technology sets for us can soon start to seem like too much of a slog.

That's because most fitness aids are designed with a focus on technology and data engineering, not on the interventions they deliver. Hourly prompts to move become an annoyance when you naturally do more exercise at a certain time of day. A line that fills with color as you approach your goal doesn't fill you with a sense of achievement. These messages don't factor in what drives us to exercise or when we feel most energetic. They don't make the emotional connections that could help us to achieve more.

At Fractal, we believe that a fusion of design, behavioral science and Al can create that emotional connection.

We put that into practice during a recent project to help a government health agency encourage healthier habits among its citizens.

### Comprehending the challenge

Countering obesity was the agency's biggest concern. Health data showed that around 65% of the country's population is obese or overweight. In addition, abundant, rich food is integral to its culture. As a result, the project focused on encouraging citizens to take more daily steps – which wouldn't be easy because the hot and humid climate does little to encourage physical activity.

But we quickly identified a way to help improve that picture. Around 85% of the country's citizens had a smartwatch, which would provide valuable data on individuals' activity levels. To unlock that information, we developed an app that captures smartwatch data and takes it to a cloud-based environment for processing. Next, we needed to find the most effective way to use it.

"At Fractal, we believe that a fusion of design, behavioral science and Al can create that emotional connection."

A blooming rose, an emblem of passion and connection is the fitness app's reward.



We studied numerous various behavioral change models, along with the ways that smartwatch manufacturers typically approach step goals. There were three key areas that we wanted to change:

Most **behavioral change models** ask people to meet aspirational goals, such as the widely accepted gold standard of 10,000 steps per day.

**Leaderboards** are focused on comparisons with other users, so those at the bottom start to feel like losers.

**Outcomes** are typically rendered as long-term benefits like weight loss or improved health, so progress can seem slow or nonexistent.

By doing these things differently, we would be able create a much more personalized, positive and achievable experience for our cohort of users. Fractal's AI capability allowed us to keep track of individual data and replace big, aspirational goals with small, personalized ones. We decided to ask users to do just 1% more than they had the day before. Those goals were managed on a personal level too. When a person had been using the app for a week or two, we used their past data to figure out when they were most active during the day. By sending them a message just before this 'active time', we could prompt them to get active at a time that felt natural to them.

We also did away with leaderboards and unhelpful comparisons with others. By comparing individuals against their own previous day's activity instead, we would help them recognize even the smallest gains and feel that they were winning.

As for those demotivating, long-term benefits, we knew that we needed to replace them with a more immediate, inspiring and deeply emotional reward. To quote psychologist Danny Kahneman, "No one ever made a decision because of a number. They need a story." We tasked our designers to create that story.

## Making an emotional connection

Studies show that if people see their behavior causing something like a plant to grow, they develop an emotional attachment. That's why our designers created a blooming rose – the flower associated with the deepest emotional connections – as the fitness app's reward.

This image of a rose, with lush green leaves and a beautiful flower, gradually fills with color and detail as the person takes more steps towards that day's goal. When the goal is met, the flower will be in full bloom.

It works the other way too. If the individual starts to neglect their step target, the rose will slowly wither and die. That emotional cost for inactivity proved extremely effective, as many users told us they kept meeting their daily step targets because they wanted their flower to thrive.

## Powering positive change

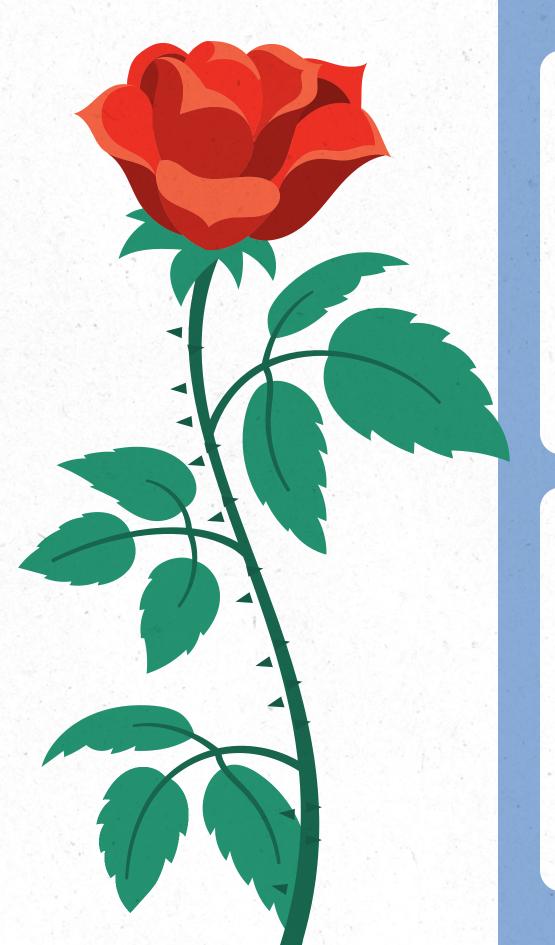
This combination of data, Al and device interventions – created through a deep understanding of human behavior and design – brought powerful results.

To measure them, we divided the users into two groups: active people who were already taking around 2,500 steps per day, and inactive ones who were only taking 600-700. After a month of using the app, the inactive users had increased their steps to around 2,500 a day. Meanwhile the active individuals were typically taking almost 5,000 steps.

Ultimately, creating behavioral change across a large and diverse group like a population is about making people want to do certain things, not just telling them to do them. When health apps achieve this emotional connection, they can be used to encourage multiple behaviors,

from drinking more water to getting enough sleep. By incorporating medical information such as test results, they can deliver an even more personalized experience that is truly tailored to the individual's health. At Fractal, we are excited to see just how much emotionally intelligent fitness technology can help its users achieve.

"Ultimately, creating behavioral change across a large and diverse group like a population is about making people want to do certain things, not just telling them to do them."



## **Biju Dominic**

## Chairman and Chief Evangelist, Fractal

As a chief evangelist of Fractal and chairman of FinalMile Consulting, Biju is playing the new game that is emerging at the intersection of human and machine intelligence. He is driven by the belief that the more we understand the inscrutable algorithm in our brains, the better the technology we develop for our machines will be.



## Sandeep Dutta

## Chief Practice Officer and Executive Team member, Fractal

Sandeep, a member of Fractal's executive team, leads the Asia-Pacific region, driving Al collaborations with government and public sector organizations for social impact. He previously led Fractal's global healthcare practice and was instrumental in developing and commercializing Qure.ai, Fractal's healthcare

# THANKS TO OUR CONTRIBUTORS

## How emotions can change your business



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## Why your mindest matters



**Terence Mauri**Adjunct Professor, MIT Mentor
Founder of Hack Future Lab

## Personalizing HIV prevention



Ram Prasad CEO & Co-founder, FinalMile Consulting

## **Building our bond with pets**



**Ricardo Prieto-Ortiz** Omnichannel Brand Director

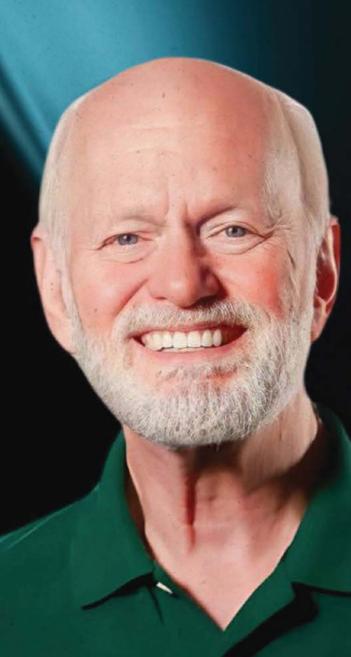
## 1% Better every day: The power of small wins



**Biju Dominic** Chairman and Chief Evangelist, Fractal.ai



Sandeep Dutta
Chief Practice Officer
and Executive Team member,
Fractal.ai



# Finally, for all!

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Dr. Marshall Goldsmith is recognized as one of the Top Ten Business Thinkers in the World and the top-rated executive coach. His books have been New York Times and Wall Street Journal #1 Bestsellers and award winners, world over.

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2 Gold, 2 Silver, 1 Bronze at the Brandon Hall Groups Awards







**Best Learning Team** 



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Fractal ranked among global elite for the third consecutive year



Coursera 2024 Al Innovation Award in India



Just as fractals demonstrate how nature organizes chaos into beauty and order, Al leverages data and algorithms to distill patterns and create sophisticated solutions, reflecting a deep synergy between natural principles and technological innovation.



