

Rethinking Organizational Adoption

A behavioral lens to solving for adoption of new technologies

After years of trying to drive digital transformation, C-Suite executives across industries identify adoption as the key challenge to address. There is recognition that technological transformation alone does not deliver results, you need to **design for adoption**.

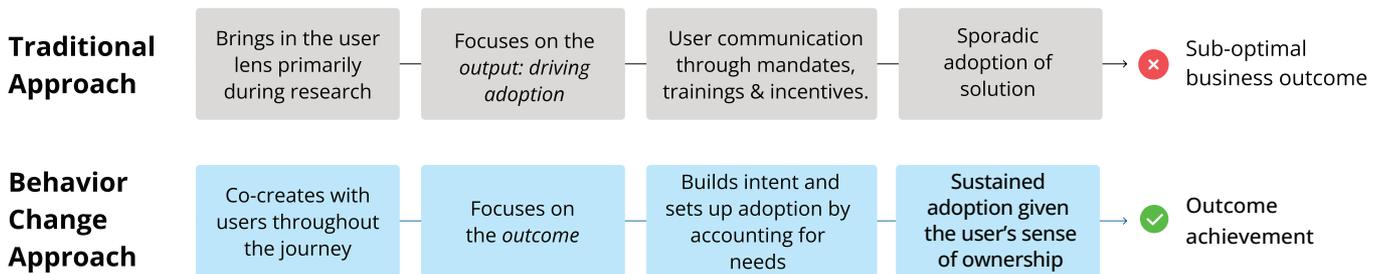
Adoption Challenges, from CPOs, CTOs, CMOs

1. Millions of dollars are spent on new solutions to make teams data-driven, automate decisions, drive efficiency and bring down costs. However, **employees use solutions sporadically or in silos to satisfy other needs**.
2. Dissonance at the managerial level brings scope creep, budget & time constraints, pressure to be agile and maintain margins. As a result, **change management becomes a challenge**.
3. Design team's inputs are taken to conduct User Research. Yet the research is not achieving its promise because the **adoption remains limited in implementation**.

Digital solutions are strategized by a core analytics team tasked to build data models at an organizational level. Change management is executed as a series of steps: problem definition based on organizational goals, data analysis to identify 'right' models and metrics, research to gather user inputs on the proposed model, test functionality and roll out. Training sessions are designed to bring organization-wide alignment on the need and value of the solution. User communication is set up to drive adoption using mandates & incentives.

Fractal's experience shows that adoption is affected when data-models are packaged as solutions. Even when User Research is conducted, it centers around the solution, not the user. Behavior Science tells us that people don't respond to a cold 'rational' solution, even if it provides a better data output. They respond when the design & communication is functionally and emotionally relevant to their needs and goals.

A Behavior Change Approach to drive Adoption



Behavior Change Approach

This approach demystifies the user context, goals and mental models from a Behavior Science and Design lens. This approach: 1) Identifies and integrates user needs right from the start. 2) Balances management needs with user needs throughout the process. 3) Moves away from traditional cold-state interventions (when the user is away from the moment of decision-making) and

instead intervenes at the *hot-state of decision making*. This makes the solution and its advocacy relevant and specific to different user contexts.

This whitepaper elaborates on 5 Key Principles using the Behavior Change approach, to help shift organizational view on adoption.

Hot-state decision-making

You enter a store to buy your regular groceries. Walking down the aisle, you realize you are hungry since you skipped lunch. You grab a large bag of chips, chocolates, and sugary goodies, and munch. Later, when you drive back, you are surprised at yourself. Because you advocate to your friends that they need to avoid chips, chocolates and sugary goodies, for health reasons. But at that moment, which is what we call the **hot-state**, when hunger battled for your attention, you went into autopilot mode to satisfy. The hot-state steered your attention and what you purchased.

Now chips are a small purchase, not a life-altering choice in the larger scheme of things. But what if the same **hot-state comes into play at work?** **How do people negotiate complex decisions, then?** For instance, the organizational finance team could be looking to spend millions on creating a solution for PMs, to make data-driven decisions on expenditures, either because data shows this as a gap or because the head of the department believes that to be the case. Before jumping to solution mode, we need to understand how PMs currently make decisions.



It is in the hot-state that users appraise a stimulus and decide on an approach vs. avoidance response.

5 Key Principles of Adoption

🌟 Principle 1: Adoption is not just a Change Management problem; it's a Behavior Change problem.

Beyond figuring out the technological and organizational alignment, identify the behavioral problem

Change Management helps systematize organizational processes and technology, to move people from one state to another; thereby supporting outcome achievement, be it sales or revenue. Behavior Change requires us to understand first why people behave as they do, and set up different pathways to guide their behaviour and thereby impact business outcomes. It is ultimately users who will choose how they react to a stimulus. In a Change Management approach, we find that their reaction is often divergent from the developer's intent. These reactions are labeled as 'irrational' but are, in fact, perfectly rational when seen from the user's vantage point.

Users in the hot-state find ways to circumvent the path laid out for them, in favor of a 'path of least resistance' - low effort and maintaining the status quo. Therefore, embracing 'irrational' human behavior will help prepare and improve Adoption chances. When defining the problem, we need to ask: **What is the behavioral challenge?**

"You see, we tend to think the problem is solved when we solve the technology problem. But the human problem—still remains, and that's a great frontier we have left. This is about the psychology of people—and innovation needs to continue all the way through the last mile."

Sendhil Mullainathan, Ideas42

The Wadala Train Station Case Study

Problem: The Wadala train station in Mumbai saw 40 deaths yearly as trespassers made their way across the tracks. Railways installed danger signs to create awareness but in vain. Building walls as a barricade was not cost-effective, and no amount of policing seemed to work.

Insight: Our research revealed that people living along the tracks overestimate their ability to gauge the train's speed, given their familiarity with watching trains go, which leads to a seemingly 'irrational' decision to cross the track. The Leibowitz principle was coming into play; *Humans underestimate the speed of large, fast-moving objects.*

The Leibowitz principle is an example of how our brains have evolved. As Behavior Architects™, we understand these limitations and design

interventions that help people make better decisions. In this case, a series of yellow lines were painted on the tracks to aid the said decision. This non-conscious design intervention acted as a reference point during the hot-state of decision-making, helping people judge the relative speed of the train.

Fatality rates dropped by 44% post-implementation.

Policy and mandates alone would not have solved the problem.



🌟 Principle 2: Adoption is not about Management needs versus User needs; it is both.

Solve for an 'AND' conversation when accounting for stakeholder needs.

While discussing needs at an organization (org) and user level, we recognize that the "two sides" are not opposites. They are complementary.

We recommend framing the problem to solve for an 'AND' conversation, not an 'OR.' However, given the number of people and departments involved, the user needs risk falling through the cracks or, worse, are situated as management needs.

Understanding user needs goes beyond data requirements, how they currently negotiate the problem or how they use an existing solution. These are important and should be captured.

But we also need to understand user goals, beliefs, pain points, and day-to-day context. For instance, in a sales agent's case, there is a significant difference between their intrinsic goals (pride, control, a sense of purpose) and their extrinsic goals (compensation, competition, promotion, and rewards). These are latent needs that are never investigated or understood. When we frame the problem, we must ask:

- 1. How well do we understand our users?**
- 2. How can we reframe Technological Adoption goals and outcomes from the vantage point of all stakeholders?**

An Insurance Case Study

The management of a Fortune 500 company wanted structure and predictability in their processes, which they hoped to achieve through a data-driven system. However, users saw it as an attack on their autonomy and authority, even though their intent was the same as the management: driving more sales. Their latent need was for clarity and a sense of control over the process and how it affects them.



Designing the product to meet the user's intrinsic goals is crucial to driving Adoption.

☆ **Principle 3: Adoption is never post facto; incorporate user needs from the beginning.**

Engineer for success in adoption by bringing in the user's perspective at each stage.

We need to engage, not just involve, users throughout the process, just as we involve decision makers. At every step, **account for underlying beliefs, goals, and context, even if they are not directly related to the problem because it affects user behavior.** This is not to be mistaken with a 'requirement gathering' exercise. In a traditional approach, research is conducted at specific stages, and data is analyzed to determine trends. Data while useful, can only tell us which actions are taken and when. We must understand how users make decisions in the hot-state and come to these insights at each process step.

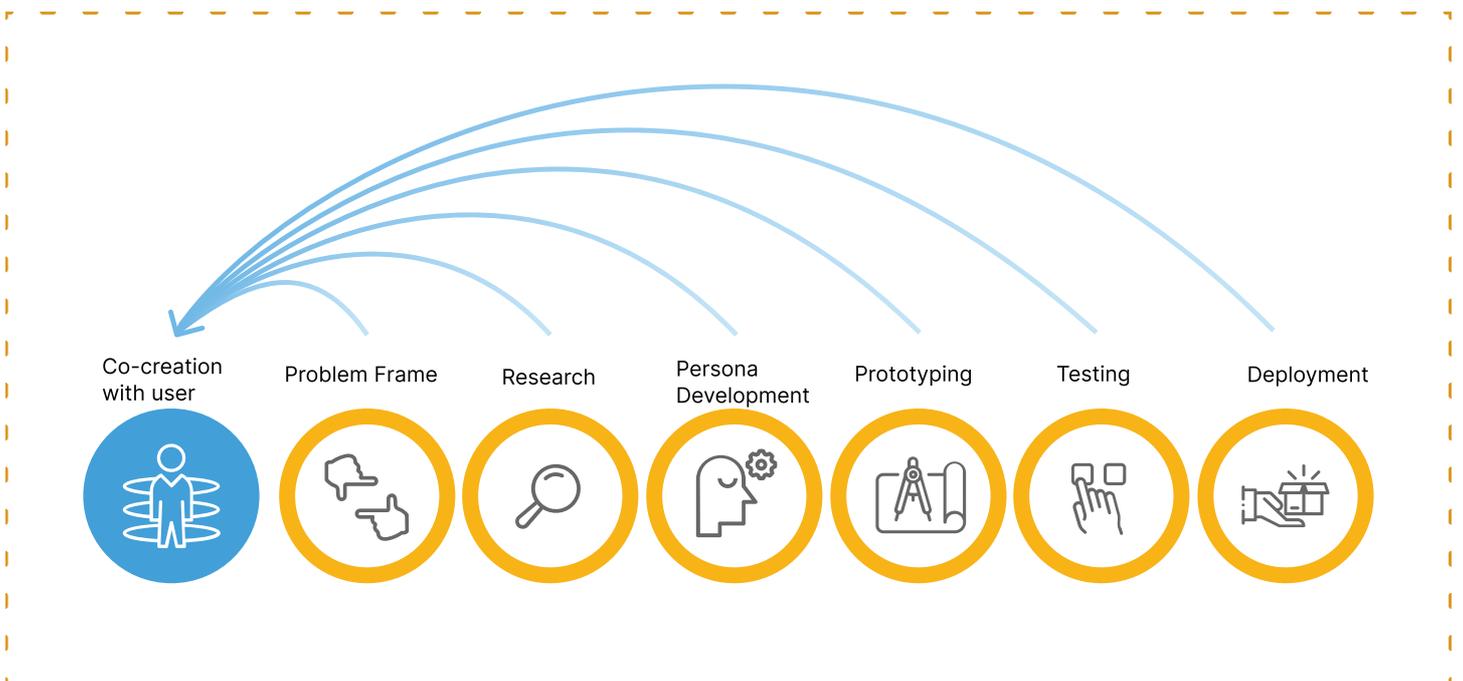
During prototyping, it is critical to allow users to use the solution in their day-to-day work.

Conduct multiple test & iteration cycles before confirming the existing hypothesis. Doing so provides users the space to bring in their lived experiences. It gives them a sense of ownership over the solution (the IKEA effect), further increasing the likelihood of adoption.

Right from defining the problem to solution deployment, we must after ask:

- 1. Have we accounted for the user perspective at every step of the process?**
- 2. What kinds of checks and balances do we need to ensure this happens?**

🧠 **Co-creation is the key—at every step.**



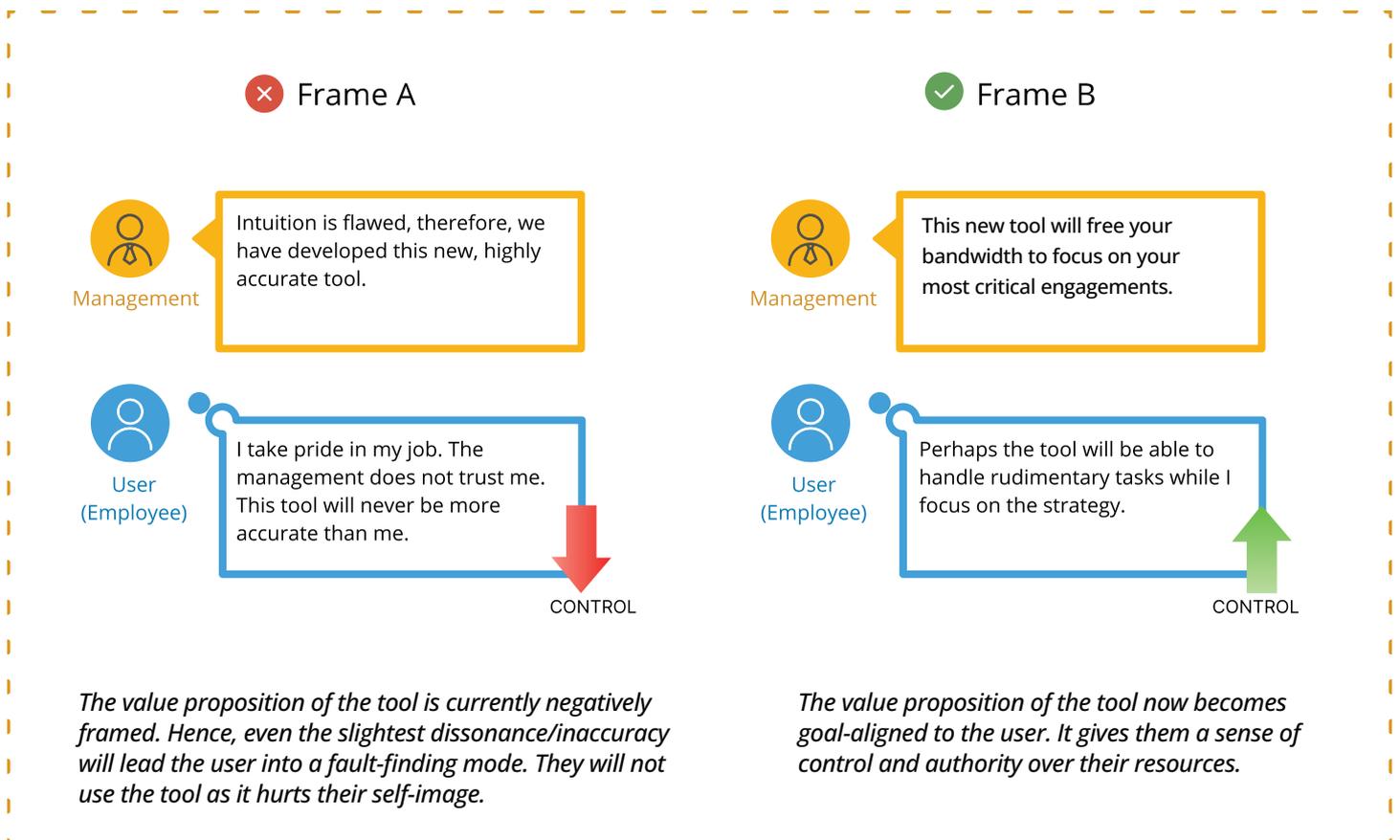
☆ Principle 4: Design for delight, not just functional requirements.

Solution Design goes beyond features & visuals; Good Design makes things work

Users struggle to meet targets, set goals, and switch between tasks daily. It can leave them frustrated and cognitively drained.

 In a negatively-valenced environment, users tend to narrow their attention, optimize scarce resources, and ignore the broader context—an effect known as ‘narrow framing’.

In such a scenario, the most sophisticated solution will not be adopted if it causes dissonance regarding how users see their world (referred to as Mental Models) and how it makes them feel. Therefore, **the solution design explicitly accounts for how users see themselves and their ways of working.** The experience will spark delight only when it helps manage the effort required and makes users feel valued.



A key area ignored even more often than solution design is User Communication.

In the image above Frame A disempowers users. They feel a loss of control. Frame B, however, positions the tool as an aid, thus enabling an approach response. No amount of careful planning will respond to these emotions if it's not actively accounted for.

Users create mental models of ‘their, world based on their lived experiences. Any attempt to change that model through training will be akin to pushing water uphill. Instead, communication has to anchor to their models. The overall question that this principle brings us is: **How do we design our solution and communication to make it more functionally and emotionally relevant to our users?**

☆ Principle 5: Focus on the Outcomes not just the Output.

Look beyond the Adoption of the solution as a metric, shift to the realization of outcomes.

Organizations set out to achieve outcomes through technological solutions e.g., stronger relationships to drive sales or organization-wide ramp-ups of data-driven decisions. However, when solutions get deployed, the tendency is to stay anchored to the output: the digital solution. This is perhaps based on the premise that the 'Theory of Change' is correct. And so, everything else must be fitted to suit the narrative. Adoption, as a lead indicator, is more tangible and measurable, so teams 'irrationally' start to equate spike in usage numbers with validation.

What we need to understand, however, is

- 1) How can we make progress on outcome achievement by measuring lead and lag indicators?**
- 2) What does the data tell us about how our users use the solution? Is our data collection geared to capture multidimensional proof points?**
- 3) How can we amplify these proof points to drive intended outcomes?**

Insurance Case Study

The same insurance company we looked at earlier wanted to enhance the relationships of their sales managers with agencies selling their policies (outcome). Once relationships were strengthened, the agencies would trust the insurance company and do more business with them.

The proposed solution was a segmentation model that would categorize agencies based on specific metrics (output). These segments would guide sales managers in interacting (communicating and selling) with these agencies. The insurance company spent years working on the backend algorithm but did not account for its impact on their users (sales managers).

The company rolled out incentives and communication to drive Adoption of the solution, and the more significant idea of achieving stronger relations took a back seat.

Our research revealed that sales managers were proud and confident of the historical knowledge and heuristics (mental shortcuts) they had gathered over the years. They valued the relationships they fostered with their agencies and perceived the segmentation model to trivialize the subjective cues that came from face-to-face interactions. To solve this, we reframed the solution as a prioritization tool instead of one that dictates ways of working.

Output Focused

✘ Adoption



- Features
- Tools
- Technology

- Temporary engagement
- Awareness but little action
- Dissuaded Users

Outcome Focused

✔ Business Results



- Prioritize those agencies that will bring value for efficiency
- Drive targeted conversations relevant to the agency's goals

- Stronger relationships
- Sustained engagement
- Aligned with business + user goals

Conclusion

The Adoption problem is currently addressed as part of a more extensive Change Management process to drive digital transformation. Our experience tells us that solving for adoption needs an additional behavioral lens.

A behavioral lens shifts the focus from driving adoption as a metric to drive desired outcomes. It accounts for user needs not limited to data & how they work, but their goals, mental models, pain points, and context - which directly and indirectly impact their emotional and behavioral response to any stimulus they encounter.

A traditional approach to driving adoption, i.e., mandates, training and incentives through heavily controlled user research, i.e., insights brought in at restricted touchpoints and in limited ways, will not cut it anymore.

Organizations need to rethink how user-centricity is plugged into the process at every step to stay ahead of the competition and generate more value from investments.

Establish checks and balances in the system to ensure this approach does not risk falling back on to old habits and ways of working with the user.

Solution design needs to create an experience that evokes delight. And this is directly related to how functional and relevant the solution is and how goal-aligned the communication is to the user's emotional and contextual needs.

The 5 principles stem from a behavioral approach to adoption and offer a tangible and actionable pathway for organizations to start thinking about this change.

- 1. Adoption is not just a Change Management problem; it's a Behavior Change problem.**
- 2. Adoption is not about Management needs vs User needs, it's both.**
- 3. Adoption is never post facto; design for adoption by bringing in the user from the start.**
- 4. Design for delight, not just functional requirements, account for emotional needs.**
- 5. Focus on the Outcomes not just the Output.**

Co-authors



Sandhya Iyer
Sr. Behavior Architect



Rutuparna Jadhav
Behavior Architect



Vijayalakshmi Murali
Design Consultant



Isabel Dec
Design Consultant

Contributors



Ann Hintzman
Chief Design Officer



Benis Kumar
Director,
Principal Behavior Architect



Param Venkataraman
Former CDO



Fractal Experience combines Design and Behavior Science to solve AI, Analytics, and Data problems through a unique understanding of the user- the context, beliefs, and mental models that affect the decision-making process.

What do we bring to the table?

A uniquely skilled team with diverse backgrounds that can handle challenges in various services. Our solutions are created to work across a host of problems in the organization while deepening engagement with the relevant users.



Innovate, create or solve a problem through us, or reach out to us about this paper.

Ann Hintzman
ann.hintzman@fractal.ai

Sandhya Iyer
sandhya.iyer@fractal.ai

Enable better decisions with Fractal

Fractal is one of the most prominent players in the Artificial Intelligence space. Its mission to power every human decision in the enterprise makes it a leader in bringing together AI, Engineering, and Behavior Science to design meaningful solutions for Clients.

Fractal product companies include Qure.ai, Crux Intelligence, Theremin.ai, Eugenie.ai & Samya.ai.

Fractal has more than 2,300 employees across 16 global locations, including the United States, the UK, Ukraine, India, and Australia. Fractal has consistently been rated as India's best company to work for, by The Great Place to Work® Institute, a 'Leader' by Forrester Research in its Wave™ on Specialized Insights Services, Computer Vision & Customer Analytics and as an "Honorable Vendor" in 2021 Magic Quadrant™ for data & analytics by Gartner.



Corporate Headquarters

Suite 76J,
One World Trade Center, New York,
NY 10007

[Get in touch](#)