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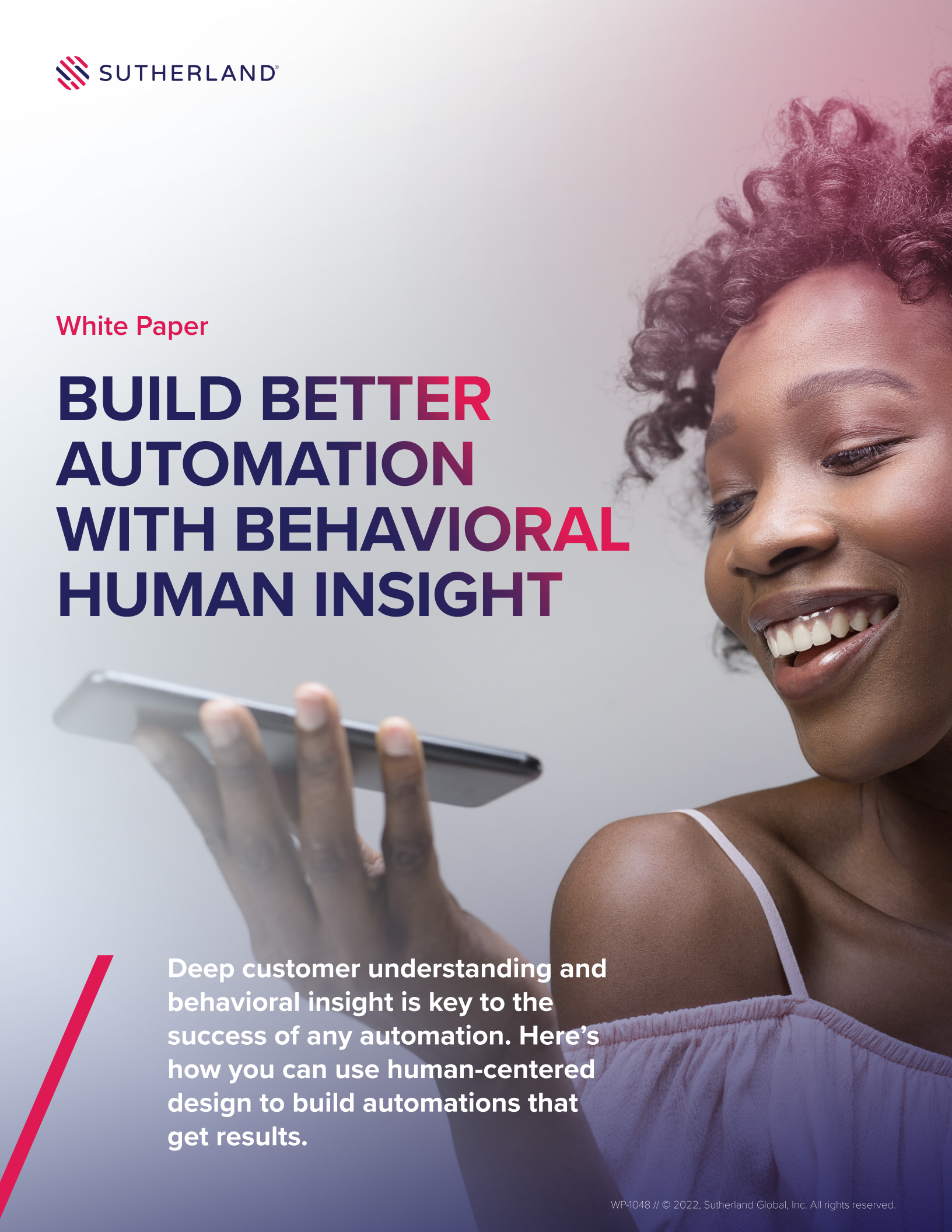
White Paper

# BUILD BETTER AUTOMATION WITH BEHAVIORAL HUMAN INSIGHT



**Deep customer understanding and behavioral insight is key to the success of any automation. Here's how you can use human-centered design to build automations that get results.**


Most organizations turn to automation because they're looking to cut costs.

And why not? Voice and text chatbots, robotic process automation (RPA) and other intelligent automation powered by cognitive technologies simply lets users get more things done, more quickly, more accurately and — in most cases — much more cost-effectively. Automation, in all its forms, has become a sensible solution.

But while expense management largely lies behind the push to automate, it's the customer experience (CX) gains that can result that are responsible for automation's contributions to growth. That's because pushing costs out of your business with successful human-centered automation doesn't just cut costs, it cuts them in a way that grows revenue.

A happy customer—one served by automation built with real behavioral insight—is also a loyal customer. And it's loyal customers that spend more money on all the good things your business has to offer. Smart automation grows brand loyalty. That makes getting automation right all the more important.

# The Big Reason Why Automation Fails

And yet, we've all been there, right?

- The chatbot that's supposed to help but keeps bringing you back to the same question.
- The IVR that's simply unwilling to connect you with the right people.
- The app you had hoped to love but leaves you so disappointed.
- The work productivity tool that makes you anything but productive.

If automation is really that important to the experience of the customer and the success of a business, then why—you might ask—do brands keep building automation that fails so often? Surely they know they're not doing themselves any favors.

Well, we've been curious about that ourselves. And while we've discovered there's quite a lot to the answer, the biggest reason boils down to just one thing: *Automation is being built without a clear understanding of the real-life human beings it's being built for.*

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Until this stops, it will continue to be as likely for a user to be hindered by automation as helped by it.

And that's just unacceptable.

What good is a chatbot or voice AI or work-process automation—with its promise of speed, efficiency, and potential cost reduction—if all it does is accelerate a user toward an unwanted outcome? When has it ever been a good thing to get to a wrong result faster?

So, why do many companies seem to take so much pride in their automation progress when many of those "gains" aren't gains at all for the people being forced to use their automation tools and technologies?

According to the Hippocratic Oath, the biggest rule of anyone practicing medicine is this: "First do no harm." We suggest that it may be time for automation creators to start holding themselves to a similar standard.

Granted, creating automation isn't exactly the same thing as caring for a sick patient. (And, thankfully, the consequences for getting it wrong aren't equally as tragic.) But creating failing automation can sometimes prove just as painful.

True automaters—that is, those who design and build bot solutions intended to improve people's lives—won't settle for setting-back humans in their quest for value. Rather, their mission is to draw organizations and their stakeholders closer together, not pull them apart.

To prevent bad outcomes, however unintentional, automaters **must be clear about two things:**

*1. The **user's true objective** (that is, what they're trying to accomplish with the automation), and*

*2. The **user's likely pattern of use** (that is, how they're likely to use—and respond to—it.*

The true objective of any automation—whether front-office or back— is always about the desired outcome of the person using it. Delivering anything short of that is a failure—plain and simple. And that's especially true when a user's bad interaction with an automation adds to their frustration or workload or destroys goodwill and customer lifetime value.

So, as an automater, where does that leave you? What can you do to help ensure that you're building and deploying the *right* automations, of the *right* processes, for the *right* people, in the *right* ways, with the *right* technologies?

# Automate What You Should (And No More)

Before you can power an automation with the right human insight, you first must strike *the proper balance between machine automation and human interaction.* Not every customer need (or operating process) is suitable to be automated. So, before you even endeavor to automate, be certain that what you'll be trying to accomplish is in fact worth the effort.

Effective automation is about using machines to free-up human beings to do their best work—indeed, the work they're best at. Turns out, the work humans are best at is NOT the work that can be easily replicated better, faster, cheaper, or more reliably by bits and bots. That makes for an ideal division of labor between people and machines.

The first challenge of 'do no harm' with your automation is automating what you should, no more. Human beings simply do some things much better than machines. Recognizing that fact will save your business time, money, and maybe even some regret. Automation—done right—means humans are able to spend their time on the things they do best.

**The Best of Machines** + **The Best of Humans** = **Automation That Grows Your Business**

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The focus of any automation must be on Human + Machine, not Human vs. Machine. The optimal complement of each working seamlessly together toward a shared outcome is the goal. People and machines—when brought together properly—are simply better together.

## *MACHINES* *are best at...*

### REPETITION
Doing the same thing(s) again and again without inaccuracy or exhaustion.

### SPEED
Machines often move, think, compute, and do things more quickly. Most things digital or mechanical have a speed advantage.

### FOCUS
They are unwavering in their ability to stay on task and avoid distraction.

### PRECISION
They're simply better at computation, calculation, and positioning.

### SENSING
Machines are better at seeing, hearing, and detecting stimuli at the extremes. Their digital makeup gives them the advantage of being super sensitive to physical changes.

### STRENGTH
Physical robots and other machinery can get more done than human muscle.

## *HUMANS* *are best at...*

### EMPATHY
Only people can understand how other people feel. Emotions are uniquely human. (At least for now.)

### IMAGINATION
Machines can mimic. But only humans can truly create and imagine something altogether new.

### CREATIVITY
Writers, artists, musicians, and performance artists all have job security for the foreseeable future. AI and machine learning can't replace the magic of human imagination.

### FLEXIBLE THINKING
Humans excel at being able to apply new knowledge to new circumstances.

### INTUITION
Turns out, you actually must have a gut to act intuitively on "gut" instinct.

When the right balance between people power and machine assistance is reached, the world may not actually be a better place, but the customers, workers, patients, students, and citizens that live it should at least be happier. Without machines and the “leg up” they provide, we human beings can’t reach our fullest potential.

There are thousands of moments when the aid of a machine—not that of another human being—simply makes more sense. Let’s take one: password resets.

Imagine, if you will, a gamer eager to jump in to play or purchase a new skill. A streaming sports subscriber is eager to catch the opening bell of a boxing championship. Or the fan of a TV series who’s been waiting all week to binge the new season. There’s only one problem… They’re being asked to provide a password but they can’t recall it.

Yes, a live agent could help. But why? What’s needed is a quick response to a repetitive task. And that sort of activity is perfectly suited for the cool efficiency of a machine. The gaming aficionado, the sports fan, and the show lover are all eager to get on with it without delay (and not having to make small talk with a live agent.)

The service agent is happy, too, with the help of a machine. After all, who among the contact center ranks is eager to field their third dozen password reset for the day?

And then there are those moments when it’s a password reset that’s standing in the way of a consumer spending more money with the brand. Clearly, it’s a rapidly efficient response that’s needed most. So—again—bring on the machine!

Or take, for example, all that work that employees do “behind the scenes” to keep operations effective and customers happy. There are, seemingly, an endless number of processes across the finance and HR and IT and supply chain and procurement functions where human workers could be so much more productive—and happy with their day-to-day responsibilities—if workflows were intelligently automated.

Organizations are run more smoothly—and customers are served more seamlessly and cost-effectively—when accounts payables & receivables, and finance ops, and job postings & recruitment, and employee onboardings, and the management of IT users & systems, and cybersecurity & data protection are all able to benefit from the innovative (and integrated!) application of cognitive tech.

Just like a contact center agent eager to please the customer, employees that don’t face customers directly aren’t pleased being stuck doing work that could be accomplished more effectively by machines. Without the proper use of intelligent process automation, none of us—wherever we labor within the modern workplace—is free to realize our fullest potential.

## When Hyperautomating, Focus On Complete Customer Journeys (Not Just Priority Touchpoints)

*Our experience suggests that focusing on improving interactions across customer journeys has a much greater impact on customer behavior than efforts to optimize high-impact touchpoints alone.*

*For example, in an industry like electric utilities, we’ve learned that investing in automation across all of a customer’s interactions with the brand—both front office and back—results in customer satisfaction and willingness-to-recommend scores that are roughly 2X those of optimizing front-office touchpoints alone. And comparable outcomes hold true for many other industries as well.*

*The positive impact of hyperautomation on brand loyalty is much greater when you focus on improving* ***customer journeys across the enterprise,*** *and not just optimizing those front-office touchpoints you think might have the greatest impact on customers.*

# One Size Definitely Does Not Fit All

When automating, one size clearly doesn't fit all. Cultural differences between nations, regions, languages, and sets of customer expectations require the optimation—and localization—of even the very best automations.

For example, we know of instances where leading streaming content providers meticulously built recommendation engines leveraging the very best of data integration and machine learning only to be met with radically divergent user responses based on nationality and cultural groupings.

While most consumers may love it when, say, their streaming video provider recommends a new film or TV series based on viewing history or behavioral, demographic, and psychographic data, consumers in some localities can find the intimacy—and accuracy—of those recommendations to be both alarming and objectionable. In one case, a majority of consumers in Japan found such suggestions more akin to an act of "Big Brother" than that of a best friend. They found being "known" in that way to be far more creepy than helpful.

Or take, for example, the trend of using tools like mobile apps and tablets to help workers on the shop floor, at the job site, or in the field. While introducing such technologies might be a welcome productivity hack for most people in most circumstances, most is not all. And the helpfulness depends on the context.

Technicians who, say, get their hands dirty working outside—or are forced to wear gloves in the cold—may not find mobile apps or glass tablets particularly enhancing their productivity. Rather than raising the quality of their workday, such interventions can actually add to the heaviness of their workload.

Very often you need to step back from the problem space and focus on understanding the people involved. You've got to learn to see the world through the five senses of the end-user. If you don't, you will waste time, money, energy—and, worse of all, brand equity—on getting it wrong. Again, what good is fast and efficient in the experience you deliver is harmful and destructive?

## While Technology May Be The "Easier" Part Of Building An Automation, Don't Take It For Granted

*Using technology to build automation is—comparatively speaking—the easy part. The harder part is choosing to build the **right** automation(s), informed by the **right** human-centered insights, that will deliver the **right** customer experiences and business performance outcomes.*

*Automations aren't just limited to chatbots, voice AI, new digital products or services with mobile app interfaces, or process simplification tools at work. Forms of content like customer care and support self-help videos also qualify—as does anything that replaces the need for, say, live agents (at moments of peak demand) or other forms of human assistance.*

*Issues related to data (and its flow), the choice of technology, resourcing and managing the build, change management, and overall governance most certainly also play a critical role. While our focus here is to talk about the central importance of building automation around human insight, that doesn't mean that these other issues—taken together—aren't equally as important. And we explore them elsewhere.*

# Build Your Understanding of Users Into Automation With Human-Centered Design

Would you be surprised to learn that the best design performers increase their revenues and shareholder returns at nearly twice the rate of their industry counterparts? Well, you shouldn't be.

McKinsey & Company, the global consulting giant, has found just that in its own research. Their McKinsey Design Index (MDI) reveals that companies with top-quartile scores grow about twice as fast as their industry peers when they:

- Measure and drive design performance with the same rigor as revenue and costs
- Make user-centric design everyone's responsibility, not a siloed function
- De-risk development by continually listening, testing, and iterating with end-users, and
- Break down internal walls between physical, digital, and service design.[1]

1 https://www.mckinsey.com/business-functions/mckinsey-design/our-insights/the-business-value-of-design

But your organization doesn't have to be a design leader to reap the benefits of human-centric design on discrete automation initiatives. You just need to be intentional about it on your build—from planning to deployment, and beyond.

*Over 40% of companies aren't talking to their end users during development*

—The Business Value of Design, McKinsey Quarterly

**What is human-centered design?**

It's a discipline in which the needs and behaviors of people drive the process for collaborative design. This human-centered approach to solution builds is balanced against business needs and the flexible feasibility of the technology to help ensure that what gets built actually achieves desired business outcomes.

Business is driven by human behavior. By taking a human-centered design approach to driving business results, you're able to use observation, learning, and immersive research to roadmap solutions.

The bar for digital experiences is being raised around the world—augmenting or replacing people-driven processes. Through the combination of process, design, and technology, you can optimize the likelihood of automation success by taking a phased approach to your builds and deployments.

While each automation is different—and the human-centered design and build process will vary with automation type (that is, RPA vs. voice bot vs. conversational AI vs. text bot vs. mobile app) being developed—the general approach remains the same.

## 1 / Discovery

Discovery is the time to level set the expectations and to further consolidate and uncover information for decision making.

| Action | Input | Outcome |
|---|---|---|
| Align stakeholders | Current process flow | 360-degree understanding of current state |
| Gather and assess current-state data | Service order details | Research readout |
| Assess new research and development | Historical reports and data | High-level recommendations for hypothesis testing |
| Measure feasibility | Current and past challenges | Technology feasibility analysis |
| Development solution hypothesis | Details of current data and benchmarks | Change readiness assessment |
| | Details of past attempts to address the challenge if any | Collection of knowledge base artifacts, processes, and manuals |
| | Compilation of knowledge artifacts and documentation | |

Tools used to collect input and understand mental models, user expectations & perceptions, usage patterns, and the wider ecosystem might include: desk research, ethnographic interviews, home/site visits, shadowing sessions.

- *Desk research*
- *Ethnographic interviews*
- *Home/site visits*
- *Shadowing sessions*
- *Journey mapping*
- *Lab testing*
- *Diary studies (text & video)*
- *Persona creation*

## 2 / Design

Test the hypothesis to ensure viability and desirability. This is where you bring a design to life—uncovering and alleviating stumbling blocks that could interfere with a successful adoption.

Outcomes for this phase include...

- *Low fidelity prototypes*
- *Development roadmap & timing*
- *Proof of concept findings*
- *Future-state use-case documentation*
- *Target operating model, capability requirements, and value drivers*
- *Solution landscape and reference architecture definition, including database requirements*

- *Adoptability approach*
- *Business case*
- *Testing feedback*
- *Design guidelines for development*
- *Digital feasibility report (including digital engineering, data & analytics)*
- *Hardware recommendations*
- *Knowledge management*

## 3 / Develop

Use a sprint-based approach that will incorporate human-centric design and analytics-enabled technology in an integrated way. The sprints then end with a nimble usability test.

Outcomes for this phase include...

- *Minimally viable product*
- *Inputs to design pattern library*
- *User testing feedback*
- *Working technology solution*
- *Data, reporting & analytics infrastructure*
- *User interface design*
- *Integration roadmap*
- *Cloud readiness*
- *Voice-enabled NLP integration*
- *Test cases/test automation scripts*
- *Test reports*

## 4 / Pilot & Validate

Enable the piloting of the application, including User Acceptance Testing (UAT).

## Skills Needed To Get the Work Done

*Here are the types of skills typically necessary to create effective automation.*

| | | |
|---|---|---|
| Engagement Leadership | UI/UX Design | Change & communication |
| Solution architecture | API transformation | Digital transformation |
| Data science | Analytics architecture | User research |
| Cloud architecture | Business process analysis | Quality assurance |
| Product management | Application management | Consulting |

But wait, you say, I'm just building automation to simplify a back-office operation, not deploy a more complex customer-facing chatbot or voice AI or mobile app. Do I really need to account for human insight in my build? Isn't bringing in an industrial anthropologist or—at a minimum—a seasoned experience designer kind of overkill?

Well, we won't fault you for asking the question. You're far from the first to question whether human insight is as essential to ops automation as they are to customer-facing ones. But you'd be wise to reconsider. Back-office automation typically fails for the very same reasons front-office ones do. And the biggest reason is failing to design, build, and deploy with the user top of mind.

A human-centered design approach to automation is far more use-case and industry-agnostic than you might think. An accountant or HR person or marketer or contact center agent is every bit as much a "user" as a customer or prospect. And what they're using the automation to achieve is likely an important part of that person's journey.

# Good Things Happen When Humans And Machines Collaborate Properly

Today's best experiences aren't digital-only or human-only. They are a hybrid of the two—bringing out the best in each. AI or automation alone can't understand the modern customer or employee. (We need humans to do that. Likely always will.)

But business outcomes simply aren't going to be elevated as they should without the use of effective intelligent automation. And while great automation is always a technical challenge, it's also a data-driven art.

**To learn more about how you can leverage human insight to build automation that matters, let's talk.**

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Sutherland is an experience-led digital transformation company. Our mission is to deliver exceptionally designed and engineered experiences for customers and employees. For over 35 years, we have cared for our client's customers, delivering measurable results and accelerating growth. Our proprietary, AI-based products and platforms are built using robust IP and automation. We are a team of global professionals, operationally effective, culturally meshed, and committed to our clients and to one another. We call it One Sutherland.

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