



Brochure
Nuance Omnichannel Customer Engagement



Winning big with AI-first personalization

Five principles for boosting sales
and CX, while reducing costs.

Contents

- 3 The power of personalized experiences
- 4 Let's get up close with personalization
- 5 Where effective personalization begins
- 5 How does ID&V commonly work in practice?
- 6 The problem with traditional ID&V and personalization
- 7 How biometric authentication solves the problem of personalization
- 8 How biometrics enables personalization—by channel
- 9 What AI-first personalization looks like
- 11 The five principles of successful personalization
- 15 Conclusion: Personalization that serves everyone

Leading brands used to be built with advertising. Today, they're built through powerful, personalized experiences.

The power of personalized experiences

At their very best, personalized experiences combine business insights, human empathy, and technological innovation. They allow brands to recognize and serve their customers more efficiently, while creating loyalty and trust—and additional revenue.

For more than 20 years Nuance has helped leading brands deliver personalized experiences through our AI-first approach; building better customer experiences, all around.

Over the next few pages, we'll explore the fundamentals of effective personalization and share five principles to guide your personalization initiatives—whether you're trying to solve a specific business challenge like improving your conversion rates, or you're simply looking to level-up your customer (and agent) experience.

What's the first thing you think of when you hear the word "personalization?"

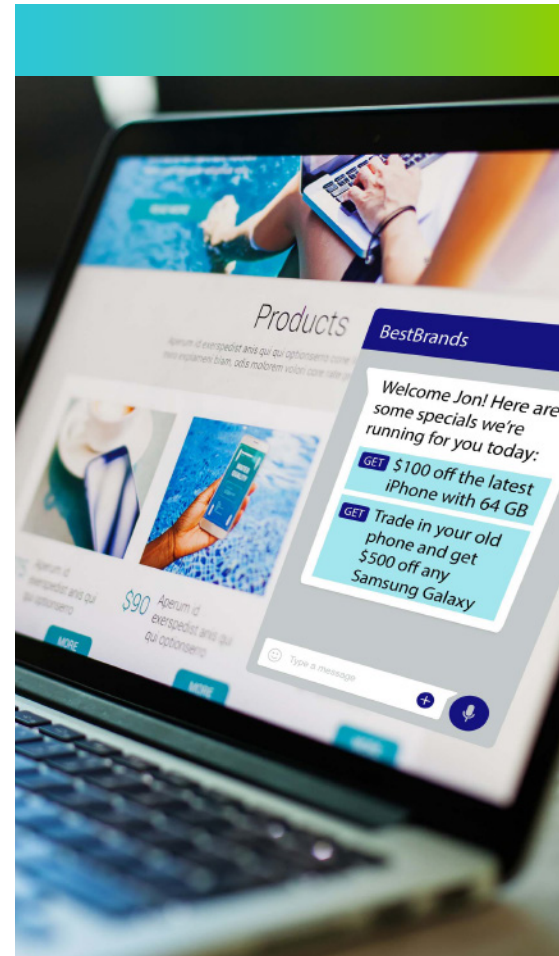
Let's get up close with personalization

For many, it's the experience of visiting an online retailer and being greeted by products we might want to buy based on our previous purchases or browsing patterns. This is a testament to the impact of Amazon's pioneering work on recommendation algorithms. The company's ground-breaking advances include recommendations based on similarities between products, not customers, and the chronological sorting of data before being input into neural networks.¹

But maybe the word "personalization" doesn't make you think of online shopping. Maybe you think of the songs Spotify puts in your 'Discover Weekly' playlist, or the shows Netflix believes you'll enjoy. Maybe you think about your bank knowing who you are when you call to make a transfer. Or a fashion brand's virtual assistant checking if you want to default to your usual shipping preferences.

The reality is that personalization comes in many flavors—and most all of them are well received. As customers, we enjoy feeling "known" by our favorite brands; and our favorite brands enjoy that we're less likely to leave them for a competitor that doesn't already know our tastes for documentaries, and high-top sneakers, and that we always call in on the 5th of the month to pay our visa bill.

But whatever the context, one thing remains true: Effective personalization starts with first knowing who you're talking to.



Customers enjoy feeling "known" by their favorite brands. Greeting them by name, with products that fit who they are, based on browsing patterns, and purchase history delivers convenience while bolstering your sales.

¹ <https://www.amazon.science/the-history-of-amazons-recommendation-algorithm>

At its most basic level, personalization starts with identification and verification (ID&V).

Where effective personalization begins

First you identify who you're engaging with, and then you verify their identity to confirm that they actually are who they claim to be. A common method is to identify customers through caller ID or cookies and then verify them with possession factors or knowledge-based authentication (KBA).

Verification helps brands to prevent fraud and to provide deeper, more precise personalization. It's also the key to compliant personalization: A brand needs to be sure who you are to be sure what permissions you've granted them regarding the collection and use of your data.

How does ID&V commonly work in practice?

When you call your bank, for example, they might check the Automatic Number Identification (ANI, also known as caller ID or CLI) provided with your call's telephony data. If the system can identify you by matching your ANI to a customer file, an agent greets you by name. Then the agent verifies your identity with a PIN or passcode, or by asking you for personal identifiable information (PII) such as your date of birth or a recent transaction.

Similarly, an online retailer might use cookies stored in your web browser to identify and greet you personally, and then use a PIN, password, or one-time passcode to verify that you really are the person it thinks you are during checkout.

But there's a serious problem with this approach to ID&V: While it can enable personalization, it more often undermines a brand's work to deliver a personal, familial experience.



“Personalization starts with identifying your customer; but verification is key to ensuring that you tailor each experience to the ‘right’ person.”

— Simon Marchand, CFE, Chief Fraud Prevention Officer

The problem with traditional ID&V and personalization

Think of it this way: When you visit your family, they don't recognize you because you can tell them the street you grew up on or the name of your favorite pet. Instead, they recognize you based on how you sound, how you act, how you look, and other factors that are inherent to you as a person. The "identification and verification" happens continuously and entirely in the background as you say hi.

On the other hand, when your favorite brand asks you to answer security questions or provide personal data, you don't feel recognized and welcomed like family—you feel like a stranger being interrogated under suspicion. The whole process interrupts your experience and wastes your time. And the truth is that most "traditional" authentication factors aren't effective against fraudsters who do have malicious intent. For example:

- Caller ID and device signals can be spoofed
- Thieves might steal a phone, perform a SIM swap, or install malware to take control of a device
- One-time passcodes can be intercepted
- Personal information, PINs and passwords can easily be purchased on the dark web, stolen via malware, or socially engineered from contact center agents

Ultimately, outdated verification methods create a deeply impersonal experience and leave the door wide open to criminals to steal from your customers and your brand.



Outdated verification methods create a deeply impersonal experience and leave the door wide open to criminals.

How biometric authentication solves the problem of personalization

Today, forward-thinking brands are looking beyond passwords, ANI matching and other basic authentication factors as the basis of personalization. Instead, they're combining advanced biometrics with other factors to verify and personalize interactions based on who their customers actually are.

Authentication with biometrics is faster, more reliable, and less restrictive—making the experience of being recognized by a brand feel much more personal, like being recognized by your family.

Some biometric modalities like facial recognition and fingerprinting have quickly become part of everyday life thanks to their prevalence on phones, tablets, and laptops. But these modalities are limited in their utility because they:

- Tie users to their device and can't be used in telephony channels
- Require reprovisioning when a customer loses or changes their device
- Can be circumvented or cheated
- Can actually facilitate family or friendly fraud

Instead, leading brands are turning to more advanced biometrics to enable secure, omnichannel journeys. These other biometric modalities include:

- **Voice biometrics** which authenticate people based on how they sound (including both physical and speech delivery characteristics)
- **Conversational biometrics** which authenticate people based on what they say (including their word choice, emoji usage, and acronym usage, and sentence structure)
- **Behavioral biometrics** which authenticate people based on how they interact with their device (including how they hold it, how they press and type, their pauses, and their swiping patterns)

These biometric modalities free customers to use whichever device or channel they want, because a person's voice and behavior and conversational style are inherent to them. They never need to be reset or updated, offer superior protection against family and friendly fraud, and can't be circumvented.

Furthermore, today's most sophisticated solutions augment these advanced biometrics by layering them with non-biometric elements such as anti-spoofing and personalization factors to further increase authentication success rates and facilitate even more exceptional personalization.

CASE STUDY

Telefónica

Personalization in practice

To ensure its most vulnerable customers could access the support they needed during the COVID-19 pandemic, global telecom provider Telefónica used Nuance voice biometrics AI to identify callers over the age of 65 and route them to priority customer service.

“The results were very good in the first two weeks, and over time that's increased to almost 100% as the AI has become more intelligent. We weren't expecting such fantastic results so quickly.”

- Pedro Serrahima, Director of Customer Experience, Advertising and Multibrand, Telefónica

How biometrics enables personalization—by channel

In the IVR and contact center, brands generally identify callers through caller ID and network signals pre-contact, and then verify them through voice biometrics during the first few seconds of their call.

This means that instead of interrogating customers, agents can now focus on delivering efficient, personal service—especially when empowered by personalization factors like age classification, which brands like Telefónica use to identify seniors for priority care.

In digital channels, the combination of behavioral biometrics, conversational biometrics, and environment monitoring allow brands to passively authenticate customers during their natural interactions. In a web app, for example, behavioral biometrics detect suspicious session changes or user inputs, while conversational biometrics detect scripts and social engineering in messaging apps. And when a customer attempts a high-risk or high-value action—such as a large money transfer or a SIM swap—voice authentication offers a faster, more personal, more secure way to authenticate the transaction.

Simply put, using biometrics for customer identification and authentication is a win-win-win:

- It makes the entire process feel more personal and allows you to personalize interactions in new ways
- It smooths friction and eliminates frustration for customers and agents alike
- It improves security, protecting customers and brands from fraud



Biometrics: a win-win-win

Using biometrics for customer identification and authentication provides results for your brand, your agents, and your customers.

99%

authentication
success rate

FEATURED OUTCOMES WHEN USING BIOMETRICS

FOR YOUR BRAND

89
SECONDS

reduction in average
handle time (AHT)

FOR YOUR AGENTS

94%

of agents deliver
better service

FOR YOUR CUSTOMERS

85%

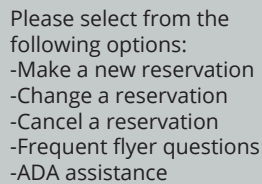
increase in
customer satisfaction

¹ Aite Group report, [Improved Customer Experience, Reduced Fraud and Cost: Contact Center Solutions](#), December 2020, accessed 29 July 2021.

You might be surprised to find a conversational AI expert saying that the most personalized experiences aren't the most "conversational." But if you take an AI-first approach to personalization, that's the only logical conclusion.

What AI-first personalization looks like

To understand why, we need only look at the rapid evolution of automated self-service experiences.




Please select from the following options:

- Make a new reservation
- Change a reservation
- Cancel a reservation
- Frequent flyer questions
- ADA assistance

Directed dialog – “Tell me in my words”

In its simplest form, automated self-service enables generic “one to all” or “one to many” engagements. Whether through a basic chatbot or a menu based IVR, a customer is typically asked to, “Please select from the following options.” This is an impersonal experience on every level yet is the most common way to engage with a brand today.



How can I help you?

I need to talk to an agent.

Open dialog – “Tell me in your words”

More sophisticated automated self-service engagements allow customers to express their needs in their own words.

A virtual assistant (VA) combines conversational AI and contextual data to understand the customer's intent as expressed in their natural speech. For example, the customer may say (or type) “I'd like to check my balance,” “I'm looking to upgrade my phone,” or “I need to reschedule my flight.” Some advanced VAs can even complete such tasks for the customer, accessing the relevant business systems on their behalf.



“With AI, the most personalized customer conversations can involve very little conversation at all.”

— Seb Reeve, Conversational AI Evangelist

Interactions with more sophisticated VAs feel more personal because they're more like an interaction with a human. But in some scenarios, it's possible to take AI-first personalization even further and create experiences that are truly "one to one."

AI powered – "I already know what you need."

Let's take the example of a customer calling an airline after their flight has been cancelled.

They reach the airline's IVR, which is powered by an advanced virtual assistant. The VA uses call validation to identify the customer based on the phone they're using, and voice biometrics to seamlessly verify their identity. It can then personalize its greeting based on the customer's recent interactions with the brand, saying, "Hi Michelle. Are you calling about Oceanic flight 815, from Sydney to Los Angeles? I can provide some alternative flights that might work for you."

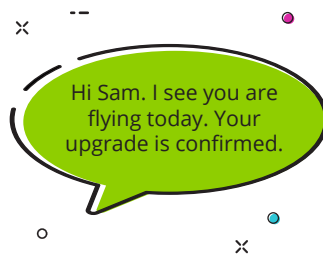
If the customer decides it's easier to look at these options on their laptop, they can move across to a web engagement without losing any context: it's an entirely seamless, highly personalized experience.

"Here, it's already done."

But even this experience could be improved. The airline could predict the customer's need to reschedule and proactively contact them—through their channel of choice—to say it's provisionally booked them an aisle seat—their saved preference—on the next available flight.

In this case, AI-first personalization can actually save a customer from having a conversation with a brand; it personalizes experiences to the point where many customers don't need to take any action at all. In fact, a survey and subsequent article by the Harvard Business

Review found you don't need a lot of bells and whistles to instill loyalty, you only need to make doing business easier and if possible, anticipate future needs or issues. This is the ultimate in personalization—removing any work at all and acting on the customer's behalf for the best outcome with no work.



CASE STUDY



Personalization in practice at Swedbank

The Swedish retail bank has integrated its Nuance VA with its CRM, allowing it to support a range of common tasks, including replacing and unblocking credit cards. The integration gives the VA the insight it needs to help the customer—from the webpages they have tried to access, to the cards they have on their account.

"The integration with our CRM helps customers complete specific act flows like replacing their card and ordering historical account statements, all without interacting with an agent. It's also helping us provide more personalized answers—such as telling customers their International Bank Account Numbers."

— Hans Lindholm, Team Manager at Swedbank

The five principles of successful personalization



1. See it from the customer's point of view

This first principle may seem obvious, but it's surprisingly easy to overlook. There are many reasons to personalize customer engagement: to reduce cart abandonment, to increase sales, to mitigate agent fatigue, to reduce fraud, to bolster your brand's reputation, and so on.

But whatever your primary objective, it's important to start with your customers. To understand why, put yourself in the following situations.

- You've called your credit card company to stop a transaction, and you're greeted with, "Hello [Your Name], are you calling about the purchase you just made?"
- You're driving home from the hardware store, and your credit card company messages you to say, "Based on your recent movements and purchases, we see you're remodeling your kitchen. Would you like 10% off tiles at Home Depot?"

In both instances, the personalization is offering genuine value to you as a customer. But for most people, the second scenario tips over into "creepiness." (There are plenty of ways to deliver location-based personalization that doesn't feel "unsettling." For example, a telco might proactively send a customer a link to appropriate roaming packages as soon as they touch down in another country.)

Personalization will always be a delicate balance—as customers, we want to be known, but not "too" known. Putting yourself in your customer's shoes is the surest way to get this balance right.

2. Be proactive and be timely

Nothing shows a customer you understand their needs like reaching out to them at the perfect moment to save them future worry or effort.

Imagine you're a utility managing a localized power outage. With a little help from AI, it becomes easy to proactively message your affected customers—explaining the issue and providing regular updates on your work to restore their service.

Through this proactive, timely, personalized engagement, you allay your customers' fears, reduce frustration, and even prevent a spike in calls to your contact center.

You'll also want to personalize your proactive engagements to reflect each customer's channel preferences. For instance, if you know that Alisha always reaches out to you using WhatsApp, you could do the same when you need to tell her about upcoming changes to her plan.



3. Recover gracefully

No brand gets personalization right 100% of the time. But the smartest understand that even a personalization “fail” can be turned into a positive customer experience. The key is creating a path to recovery.

Let’s say you buy a pair of sneakers online. They arrive the next day—just after you’ve seen the same pair for \$50 less on another site. You sign into the retailer’s app to see if they’ll match the price.

The retailer’s chat is front-ended by a VA. Based on all the data it has at hand, the VA makes its best guess as to why you’re getting in touch. It says, “Hi [Your Name], are you happy with your sneakers in purple?? If not, I can help you arrange a return.”

You say, “The sneakers are great! But I’m hoping you can match a price I’ve found online?”

The VA immediately starts walking you through the retailer’s price match process, and you’ve soon arranged the refund you were hoping for. The VA has delivered a great, personalized experience—it asked a relevant question, and didn’t waste your time—despite initially misdiagnosing your issue.

In this sneaker example, you’re likely to feel pleased with the personalized service and to purchase again. After all, the brand was responsive and easy to do business with, increasing your loyalty. What’s more, the retailer has avoided losing a sale and potentially a customer, as might have been the case if its VA hadn’t been able to handle the price match. It was a win-win.

As always, the key to recovering gracefully is seeing the interaction from the customer’s perspective.



The key to recovering gracefully is seeing the interaction from the customer’s perspective.

4. Personalize automated and human experiences

So far, we've spoken mainly about personalization in the context of automated customer engagements.

But there will always be times when a customer needs or simply wants to speak to a human being: When they can't find the answer themselves, or when they need to feel human empathy and reassurance. And when they do, continuing that personalization is the key to creating a better experience for both customers and agents.

AI can help human agents personalize the conversation. As we discussed earlier, AI-powered biometrics can authenticate the customer in seconds, allowing the agent to focus on establishing their need, not their identity. Then, AI can support the agent throughout the interaction—serving up details regarding the customer's service or purchase history, recommending relevant products, and suggesting next steps. It can even analyze customer sentiment and predict CSAT, guiding the agents' reactions and responses.

One great way to make live agent experiences feel even more personal (and to manage contact center traffic volumes) is to offer customer service via asynchronous messaging.

Asynchronous contact gives your customers the freedom to pause their conversation while they drive the kids to school or jump into their next meeting—just like they would pause a text conversation with a friend. When they're ready to continue, the agent still has all the context they need to pick up exactly where they left off—seamlessly and hassle free.

Enterprises that have already embraced asynchronous conversations are even finding that it helps them to drive increased revenue: One telco that adopted the technology saw a 12% revenue increase in a single channel. When the carrier examined their data, they found that when customers had their questions answered or issues resolved quickly and effortlessly, they were more likely to inquire about add-ons like accessories, new devices, and plans.

12%
revenue increase in a single
channel at one telco that adopted
personalization technology

Personalization in practice—across agents and AI

One of the largest mobile network operators in the US has been working with Nuance for over 12 years. More recently, the company took advantage of our open APIs to integrate its Nuance Live Chat platform with a third-party VA and IVR—enabling seamless customer engagement across automated and live agent interactions.

FEATURED OUTCOMES/ STATISTICS

100%

outbound sales
chat provided by
Nuance agents

50%

increase in CSAT
scores over 3 years

38%

increase in conversion
rate over 3 years

5. ABO (Always be optimizing)

Our final principle for creating powerful personalized experiences is to keep looking at your engagement data. Keep analyzing what's working, and what isn't. And always be optimizing for ever-greater success.

Optimizing begins with analytics. You need to know your processes, know which steps and channels are working—and which aren't—and you need to be flexible enough to address issues when you find them. It's all about the details, and you can't fix what you don't know. Once you've identified areas of improvement, keep optimizing.

Your choice of solution vendor is key. If you want to fully own optimization, you should choose a partner that provides a strong DIY toolset for the creation and

implementation of optimization plans. If it makes more sense for you to hand the responsibility over, make sure you choose a partner with a robust team of AI experts.

We find that for many brands the sweet spot is actually somewhere between these extremes: A collaborative, hybrid approach, where they remain firmly in the driver's seat, but can access the skills, guidance and support whenever they need to.

Select a well-established vendor, and they'll be able to guide you based on learnings from across their customer base, not just from within your own business. At Nuance, for example, we're able to draw on the insights we gain supporting 31 billion customer interactions and 8 million authentications every year.

Conclusion: Personalization that serves everyone

The power of successful personalization is easy to grasp. Just think about walking into your local café and hearing the server say, "Hi there! Flat white coming up! Oh, and you know what? We've got those red velvet donuts you love fresh out of the oven!"

This sort of personalized experience feels great for you, for the server, and for the business (which has very likely just upsold a donut.)

Today, with the help of the latest conversational AI and biometrics technologies, it's possible for brands to deliver similar levels of personalization remotely, and at scale.

So, when a customer contacts you, your agent can greet them by name, know what they're likely calling about, and what else they might be interested in—if your IVR hasn't already saved them the conversation by anticipating and resolving the customer's need directly.

As you build out your own personalized experiences, just remember:

- Put yourself in the customer's shoes
- Be predictive and proactive, and save conversations
- Recover gracefully when personalization misses the mark
- You can (and should) personalize both automated and human engagements
- Optimize. Optimize. Optimize.

Simple steps to help create frictionless, efficient, loyalty-building experiences that your customers and your brand will love.

LEARN MORE

Please contact your Nuance representative, visit our website, or email cxexperts@nuance.com for more information.



About Nuance Communications, Inc.

[Nuance Communications](#) (Nuance) is a technology pioneer with market leadership in conversational AI and ambient intelligence. A full-service partner trusted by 77 percent of U.S. hospitals and 85 percent of the Fortune 100 companies worldwide, Nuance creates intuitive solutions that amplify people's ability to help others.

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