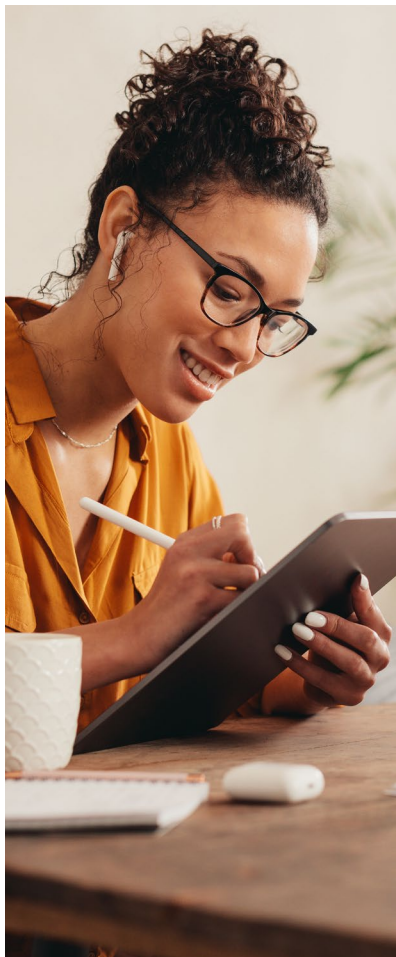# Data and AI: Powerful Differentiators in the Consumer Age of Healthcare

Before you dive into the content, allow us to introduce ourselves...

We are TTEC Digital

One digital transformation partner that brings humanity to customer experience and delivers moments that matter.

3 leading customer experience brands.
1 powerhouse digital transformation partner.

ttec DIGITAL   avtex A ttec Digital Company   VoiceFoundry A ttec Digital Company

3x the Expertise

We combine the expertise, technical know-how, innovation, partnerships, and passion of three leading customer experience companies.

That means that when it comes to creating helpful CX resources and thought leadership content for companies like you, we tap into the hundreds of customer experience experts across Avtex, TTEC Digital, and VoiceFoundry.

No matter the logo that appears on screen, our goal is always the same: to fuel exceptional experiences and help our clients find more customers, win more customers, and keep more customers.

How do we do it? Through an approach we call Experience 360: fusing every component, channel, interaction, and technology together to bring to life a 360-degree experience unique to your brand and hyper-personalized for your customers.

Enjoy the Read!

Introduction

For patients and members, navigating the complex world of healthcare has higher stakes than ever before. High-deductible health plans paired with new entrants into the healthcare ecosystem have created a burgeoning marketplace that encourages patients and members to become careful consumers of the plans and providers they select.

At the same time, providers and payers feel mounting pressure to exceed expectations and maximize outcomes at every key moment in the healthcare journey. If they fail to do so, they run the risk of losing patients and revenue.

But, as the saying goes, pressure makes diamonds.

Pressure makes diamonds.

The competitive landscape in healthcare has spurred massive innovation across nearly every aspect of the care continuum. From 2014–2018, companies closed on 580+ healthcare technology deals in the U.S. — each one worth more than $10 million — for a total of more than $80 billion.

This is good news for healthcare organizations looking to find their competitive edge in the modern market. The foundational tools are out there to build strategies that personalize care, manage chronic conditions, and support every patient step in between. But the key to standing out in this pressure-filled market lies in being able to identify where consumer expectations are headed next.

Data and AI Poised to Unlock Patient-Centric Healthcare Innovation

In 2022, healthcare is already becoming a story of one. As patients increasingly seek to navigate their healthcare plans and bills on their own, their questions, challenges, and frustrations all become more personalized too. In the payer world, they need to know how much a specific procedure will cost them on their plan, and whether it will be classified as an inpatient or outpatient procedure. In the provider world, they need to search for the best doctors, keep track of different appointments, and remember to take their daily medications.

That is where data, analytics, and AI come in. At the center of the healthcare technology revolution, these emerging practices can help to create hybrid care structures that empower patients to bring their healthcare plans with them anywhere, anytime.

Is investing in Data and AI worth the cost? Find out with the calculators on page 8
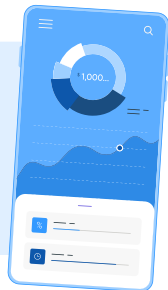
The healthcare industry is currently sitting on 30% of the world's data. When harnessed successfully, this data helps to support the modern decentralized healthcare landscape—bringing the necessary personalization and information patients need to navigate complexity.

Across the care continuum, new data strategies are empowering healthcare organizations to erase these complexities and replace them with streamlined, patient-first solutions, including:

- Screening patients
- Executing patient intake and triage
- Diagnosing and imaging
- Preventative care and condition management
- And so much more...

As patients continue to take on more of the burden to manage their own care, these emerging practices offer a valuable opportunity for providers and payers to support their patients and win long-term loyalty.

The Limitless Potential of Data and AI in Healthcare

So, what do these data-driven strategies look like in practice? Let's take a look at four anecdotes that offer a glimpse of data and AI's potential in patient-centric healthcare. In each case, payers and providers went above and beyond to predict the needs of their patients and align themselves with the outcomes their patients desire most.
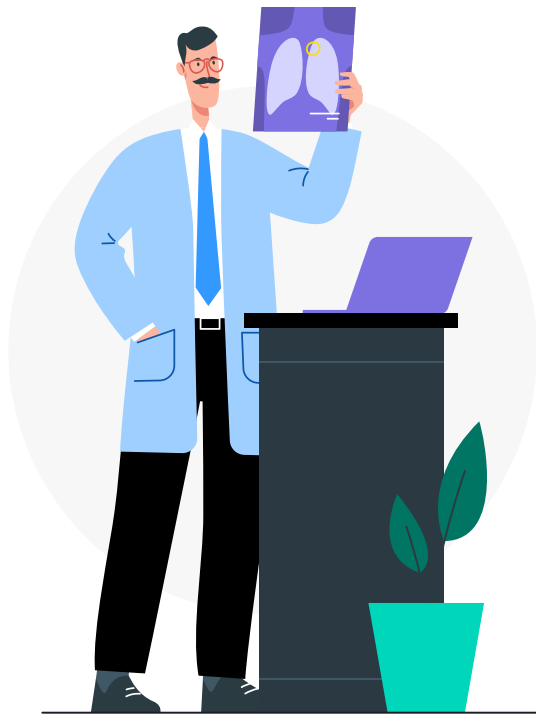
01 **Condition Diagnosis and Early Detection**

From breast cancer to kidney injuries, data is helping some leading healthcare providers to activate at-risk groups, and both track and treat their health over time. For example, while most providers have EMR systems that assist in recommending closer monitoring for patients who meet a certain age designation or family history, mammograms often run a risk of producing a false positive. By integrating additional data related to hormones, genetics, and even breast density, providers can help reach a verdict faster and with greater accuracy — reducing the need for unnecessary biopsies.

At TTEC Digital, we're also helping our clients think about patient activation. By parsing patient data throughout your EMR, our screening solutions can find patients who are at greater risk for all sorts of conditions — including colorectal cancer and breast cancer.

02 Member/Patient Service and Support

One of the biggest challenges patients face as they set out to navigate the healthcare market on their own stems from a lack of understanding. And who can blame them? Deductibles, covered services, and care options all bring considerable complexity with them.

The logical answer to this challenge might be to increase investment in the call center. But with any new growth in the call center comes a new drain on your organization's cost efficiency. Not to mention it fails to meet a growing segment of your patient population's desire to engage in self-directed care.

In the retail sector, brands are already using conversational AI to fill this gap. Healthcare organizations are next. In fact, conversational AI chat assistants are already helping some leading payers assess member bills, enroll prospects, and explain benefits and out-of-pocket costs. At each interaction point, these bots are able to pull up personalized member data and use natural language processing (NLP) to identify keywords, delivering sought-after, personalized answers. Not only do conversational AI bots provide answers to

critical questions 24/7/365, but they also help reduce call handle times and other big contact center costs. In the provider world, virtual nursing assistants can provide the same quick, efficient answers — cutting down on visit copays and ensuring consistent patient communication between visits.
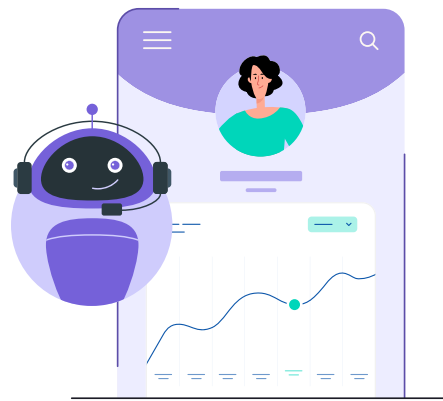

03 Health Program Adherence

Once diagnosed, many patients routinely struggle to keep up with their new chronic care management plans. Across the healthcare landscape, lapses in program adherence result in over 125,000 deaths a year and cost the healthcare system $100 billion to $300 billion as patients turn to emergency departments and hospital visits when their condition worsens.

Conversational AI represents one way providers are trying to keep patients engaged in their plans. Meanwhile, other organizations are using personalized apps and gamification to help patients complete their care regimen and tick each box on their healthcare to-do list.

TTEC Digital is helping at-risk patients re-engage with the healthcare system after noted lapses in their care plan. For example, patients with hypertension or Type 2 Diabetes who meet specific segmentation parameters are notified to schedule a new appointment or sent a reminder to refill an outstanding prescription.

In all these cases, organizations must unify data from their electronic health records and other core systems, and then enrich that data with the essential contact information and social determinants of health to create a more complete 360-degree view of patients.
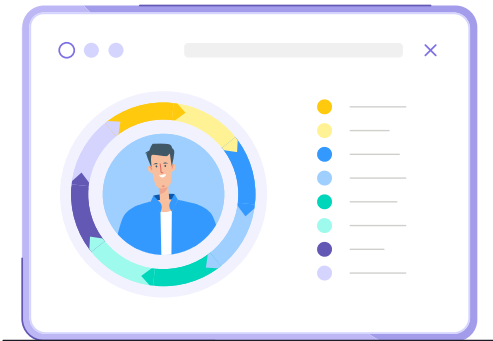
04 Promoting Expedient Care

What about when the unexpected happens? Even in the emergency room, where each patient encounter is seemingly random and unpredictable, data and AI are helping forward-thinking ER departments predict and prepare for uncharted territory.

At Johns Hopkins Hospital, predictive AI techniques are helping to improve the efficiency of patient operational flow. By calculating peak times of day and peak times throughout the year, as well as closely monitoring patient admittance and length of stay, the team at Johns Hopkins is better predicting when beds will open up and adjusting staffing levels to meet patient needs. Thanks to the hospital's AI program, the ER is now admitting patients to beds 38% faster than before. This has resulted in an increase in ER revenue by $16 million — without a need for more beds.

Across the broader provider ecosystem, AI is also shifting some of the intake burden from clinical teams. Virtual assistants can take on some of the initial hospital documentation, triage, and note taking — freeing nurses, medical assistants, and other clinical staff to focus on high-touch patient care.

Turning Possibility into Practice

A common myth in healthcare is that data and AI solutions are only for the eCommerce giants or healthcare providers and payers with elaborate in-house IT and data teams. The truth is healthcare organizations don't need limitless resources to drive powerful data-driven changes throughout their organization. More importantly, they don't have to undertake these challenges alone.

In reality, the growing competition for patients and members means that healthcare organizations can't afford not to explore data and AI solutions.

As personalization in healthcare continues to grow, it will continue to become the expectation from patients who have no shortage of providers and payers to choose from.

At TTEC Digital, our team of data scientists and CX strategists bring decades of patient and member engagement experience to every interaction — supporting key business objectives with the right data and AI tools and solutions to grow patient loyalty, boost patient satisfaction, and exceed your bottom-line goals.

Here are three data and AI strategies we can use to help jumpstart your practice:

Machine Learning-Based Targeting and Prioritization

Learns progressively more about patients and members during each interaction to better adapt and predict their needs.

- Reach and Response Propensity Modeling
- Lead Prioritization
- Channel Preference Optimization

See Your Potential ROI →

Journey AI

Integrates all data in one place for better informed agents, while helping provide the best health outcomes for patients and members.

- Journey Analytics
- Deep Learning Models
- A Self-Learning Loop

See Your Potential ROI →

Intelligent Routing

Matches patients and members with agents who are a fit for their situation based on their customer attributes and predicted behaviors.

- Align Customer's Likelihood to Convert with an Agent's Skill
- Consistent User Experience

See Your Potential ROI →

We Can Help

Whether you need an out-of-the-box patient activation solution, new omnichannel solutions to better engage members in their preferred channels, or something in between, we have the right strategies and technologies to turn possibility into reality.

Learn more about how TTEC Digital can help elevate your organization's data practices at ttecdigital.com.

[Learn More]

About TTEC Digital

TTEC Digital is a full-service Customer Experience consulting and solution delivery provider focused on helping organizations create better experiences for their customers. With an unparalleled breadth of knowledge and experience, and partnerships with leading technology vendors, TTEC Digital is uniquely suited to address any CX challenge.

Our portfolio of solutions and services supports our unique approach to Customer Experience, which incorporates the power of data throughout two key phases to achieving CX Transformation. Our CX design solutions and services aid in the process of defining and improving CX. From journey mapping to CX design thinking, we provide the support you need to set the foundation for CX success.