

Conversational AI

The next wave of customer and employee experiences

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What is Conversational AI?

Defining conversational AI and its components

Conversational AI is the next wave of customer and employee experiences

Cost-efficient digital experiences

For the first time, advances in automation, artificial intelligence (AI) and natural language processing (NLP) make it possible to design cost-efficient digital experiences. Now, where information can be purposeful, simple and natural, customer conversations with organisations increasingly resemble conversations with employees in-person.

WHAT IS CONVERSATIONAL AI?

A programmatic and intelligent¹ way of offering a conversational experience² to mimic conversations with real people, through digital and telecommunication technologies.³

01

Informed by rich data sets and intents

02

Providing customers with informal, engaging experiences that mirror everyday language

03

Digitally enabled products, platforms, and experiences relating to communication, sales and service consultations as well as other customer services

Conversational AI brings together eight technology components

- | | |
|--|---|
| <p>01 Natural Language Processing (NLP)</p> <ul style="list-style-type: none"> - Ability to "read" or parse human language text - Pre-requisite for understanding natural sentence structures versus simple keyword "triggers" | <p>05 Voice Optimised Responses</p> <ul style="list-style-type: none"> - Ability to engage in conversation in a humanlike manner and show emotions to deliver an optimised experience |
| <p>02 Intent Recognition</p> <ul style="list-style-type: none"> - Ability to understand what the user is requesting, even if phrased unexpectedly - Good intent recognition is vital if you don't want to annoy your users with roadblocks in the experience | <p>06 Dynamic Text to Speech</p> <ul style="list-style-type: none"> - Converts written text to natural sounding speech, supporting various languages, voices and accents - Allows for emphasise of capital letters and tonal inflection |
| <p>03 Entity Recognition</p> <ul style="list-style-type: none"> - Understand that some text refers to informative abstract categories (entities) such as "February 2" = Date - Necessary for more complex commands and analysis | <p>07 Machine Learning</p> <ul style="list-style-type: none"> - Learn how to better respond to the user by analysing human agent responses - Necessary to improve intent recognition |
| <p>04 Fulfilment</p> <ul style="list-style-type: none"> - The ability to pull data from web services or databases using APIs, run conditions and inform the Dialog Manager | <p>08 Contextual Awareness</p> <ul style="list-style-type: none"> - Ability to follow conversation history, translate, recall and memorise information over conversations - Necessary for natural, human-like back and forth conversation |

Supporting elements

- | | |
|---|---|
| <p>a] Reporting & Monitoring The ability to tell you how your conversational agent is performing by providing insights and analytics.</p> | <p>b] Security & Compliance The ability to mitigate security risks. Security & logging capabilities vary amongst platforms.</p> |
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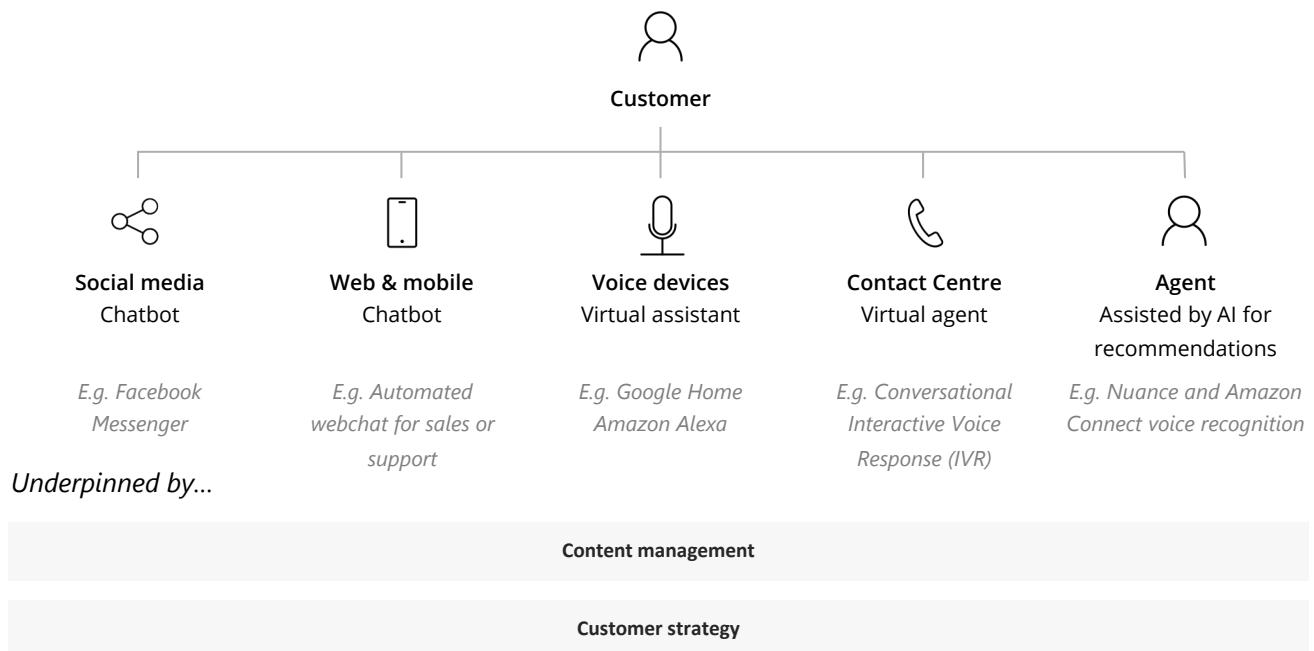
Customer outcomes

The opportunities for organisations and their customers

Conversational AI is an enabler to personalisation

The opportunity presented by conversational AI

Using conversational AI, organisations can provide personalised and differentiated experiences that build relationships with their customers. Each interaction can feel like a 1:1 conversation that is context-aware and informed by past interactions.



Embedded with...

Technological advances in AI and NLP

Cognitive agents are going beyond keyword matching. Advancements in NLP processing speed, machine learning models and data availability have made this possible.

Platforms maturing

As Conversational AI technology becomes more popular, the development platforms become more mature. They come with easy to grasp drag-and-drop interfaces, allowing business users to build and manage agents themselves.

Flexible technology integration/APIs

As organisations move to Software as a Service (SaaS) solutions, integration capabilities are getting fast and more sustainable, capable of keeping up with changing business needs and technology.

Solve both customer and business needs

Organisational outcomes

Customer Driven

Organisational Driven

Use case example

| | Improve customer acquisition | Reduce churn | Increase revenue per customer | Reduce cost-to-serve | Increase employee satisfaction |
|--|------------------------------|--------------|-------------------------------|----------------------|--------------------------------|
| Omni-channel experience Integrate channels with each other so customers receive consistent support | | | | | |
| Self-service Enable customers to complete the task they need whenever and wherever they want in a cost-efficient manner | | | | | |
| Real-time personalisation Personalised products, service, offers, and content in real-time based on the customer context and needs to offer a differentiated experience | | | | | |
| Sentiment analysis Identify, quantify and extract emotions across channels to understand the social sentiment of their brand, product or service | | | | | |
| Automatic knowledge base & content creation Identify the most relevant data insights to automatically create custom content for each user and provide service recommendations to employees | | | | | |
| Predictive sales leads Score users' likelihood of converting based on internal and external data, enabling sales to prioritise leads | | | | | |
| Conversational interfaces Enable users to have conversations that feel natural with machines by speech or text | | | | | |

Customers and businesses are reaping the benefits of conversational AI

Deloitte has supported organisations across diverse industries to deliver Conversational AI to improve customer and employee outcomes.

Improve customer acquisition

- Makes it easy for customers to find information and make a purchase anywhere and anytime
- Offer customers personalised products, recommendations and content more likely to meet their needs
- Provide agent decision-support with next best offer suggestions
- Rapidly scale up and down to always serve new customers in a cost-efficient manner

Reduce cost to serve

- 15 – 70% cost reduction opportunities depending upon the customer channel interactions deflected into Conversational AI enabled channels
- Short payback period with low integration costs and high potential return on investment
- Algorithms are organically trained as customers use the virtual agents, enabling cost-efficient continuous improvement

Reduce churn

- Provide customers with the support needed to resolve issues whenever they want, increasing customer satisfaction
- Offer employees insight into customers' feelings to inform next best step recommendations

Improve employee satisfaction

- Basic routine tasks can be automatically completed by the AI-enabled virtual agents, allowing employees to perform more high-value and meaningful work
- Offer employees support from a virtual agent on how to best support the customer
- Share sales leads recommendations with employees, allowing them to better achieve their sales targets

Increase revenue per customer

- Basic routine customer interactions will be performed by the virtual agent, freeing up employee capacity to sell products and services
- Gather, analyse and act on the customer's preferences and irritations to design tailored products, offerings, and promotions

Industry growth

Our understanding of the industry context and financial impacts

Industry growth and tangible impacts of Conversational AI

Early benefits from the adoption of Conversational AI mean the global AI-derived business value is expected to grow by an average of 30% annually.



Increase in Net Promoter Scores

Organisations can increase their NPS when using Conversational AI to effectively provide a consistent quality of service.



Increase in sales conversion rates

Organisations can significantly increase their conversion rates when using Conversational AI in sales process.

Conversational AI Market by Region

The Conversational AI market size is expected to grow from AUD 6 billion in 2019 to AUD 22.6 billion by 2024, at a CAGR of **30.2%** during 2019-2024.



Source: Adapted from Gartner, 2018

How to get started

Launching your Conversational AI journey

Discovering the potential of Conversational AI for your organisation

To get started, you need to understand where you are on your Conversational AI journey.

What stage most sounds like your organization?



01 Imagine

*We know we need Conversational AI, but we require a **strategy** to tell us where we are in order to start, set a direction and test the use cases for the technology.*



02 Deliver

*We have selected a Conversational AI product or products and the technology to support them. But we need to **validate** with users to prove assumptions and benefits, **pilot** and **integrate** them.*



03 Run

*We have successfully run Conversational AI enabled services. We're ready to **scale**, **continuously improve** and **optimise** these sustainably.*



01 Imagine



02 Deliver



03 Run

The opportunity at hand

We can help you develop a strategy that outlines the vision, objectives, opportunity areas and action plan on how Conversational AI can be integrated into the organisation.

Key questions

These are the types of questions we'd typically discuss with you and your team.

What are your customer experience aims?

- What experience do you want to create for customers and employees, and which conversational channels have relevance?
- How can you align Conversational AI initiatives with your organisation's goals, vision and strategy?
- How could you join up your existing channels to create a personalised experience?

How will you prioritise opportunities?

- What are the guiding principles to translate customer priorities into an AI-led strategy?
- What framework will you use to prioritise initiatives to maximise the value and outcomes of your opportunities for your community?
- How should your Conversational AI initiatives be managed as a portfolio?

How will you test the new channel and proposition?

- What is the right use case to demonstrate value while minimising risk?
- What is the right strategic technology to drive cognitive solutions and will it work in our ecosystem?
- How do we establish the knowledge base and content that is required to power Conversational AI technology?
- How do we measure success?

Example activities

Run a Conversational AI lab or Use Case ideation workshop

Conduct a Conversational AI maturity assessment

Technology Partner and Platform Assessment

Research/engage employees and customers to generate foundational insights

Design & build Conversational AI solution prototype/s with stakeholders

Develop a roadmap and KPIs to measure outcomes



Designing and launching

We can help further your initiatives by applying a rapid method to design, pilot and launch scalable Conversational AI experiences that address customer and employee needs.

Key questions

These are the types of questions we'd typically discuss with you and your team.

Are you addressing the right opportunity or challenge?

- Does it address unmet needs of consumers and/or employees?
- What are you currently doing to alleviate existing pain points?
- How will the solution affect behaviours or help with current challenges?
- Is the solution financially viable?

What are the critical features, people, and systems needed to deliver a valued service and is it feasible and viable for your organisation?

- How will you support your staff to effectively deliver a Conversational-AI-supported service model?
- What skills do you need to build in your internal team?
- How do we integrate with your core systems and processes, and ensure escalation to human agents when required?

How will you test the new channel and proposition?

- Who are the target groups for the pilot?
- How will you measure pilot success and what customer testing strategy will you implement?
- What resources, partnerships, and technologies do you need to build it?
- How do you test and manage unknowns and risks?
- What operating model and governance structures are required?

Example activities

Customer Testing to evaluate feasibility and viability of concepts

Create Conversational Style Guide and multimodal design principles

Identify operating model and balance AI with human hand-off

Complete Design and Build of prioritised use cases

Integrate with core systems and processes

Pilot and launch solutions



Scaling and improving

We can support your ongoing delivery and improvement of Conversational AI. Helping you continuously optimise, we can shape growth and development opportunities.

Key questions

These are the types of questions we'd typically discuss with you and your team.

What resources, partners and platforms do you need to maintain the solution?

- Does your organisation have staffing bandwidth to support services?
- Do you have the technical knowledge and skills to support the Conversational AI service?
- Do the financial incentives for employees allow for volume growth?
- What partners and platforms could better enable service delivery?

How will you scale the solution?

- What operating model and governance structures are required?
- What are your scaling diagnostics and criteria?
- How will you approach scaling the number of use cases and customers served?
- Where will you scale first?
- How do you facilitate adoption?

What further opportunities do you see for Conversational AI in your organisation?

- How are you currently performing against benefit realisation targets and consumer and/or employee expectations?
- Are you currently deriving insights out of the gathered data to identify areas of further improvement?
- How can you reduce the cost and risk of your solution?

Example activities

Refine and optimise solution based on customer research outcomes

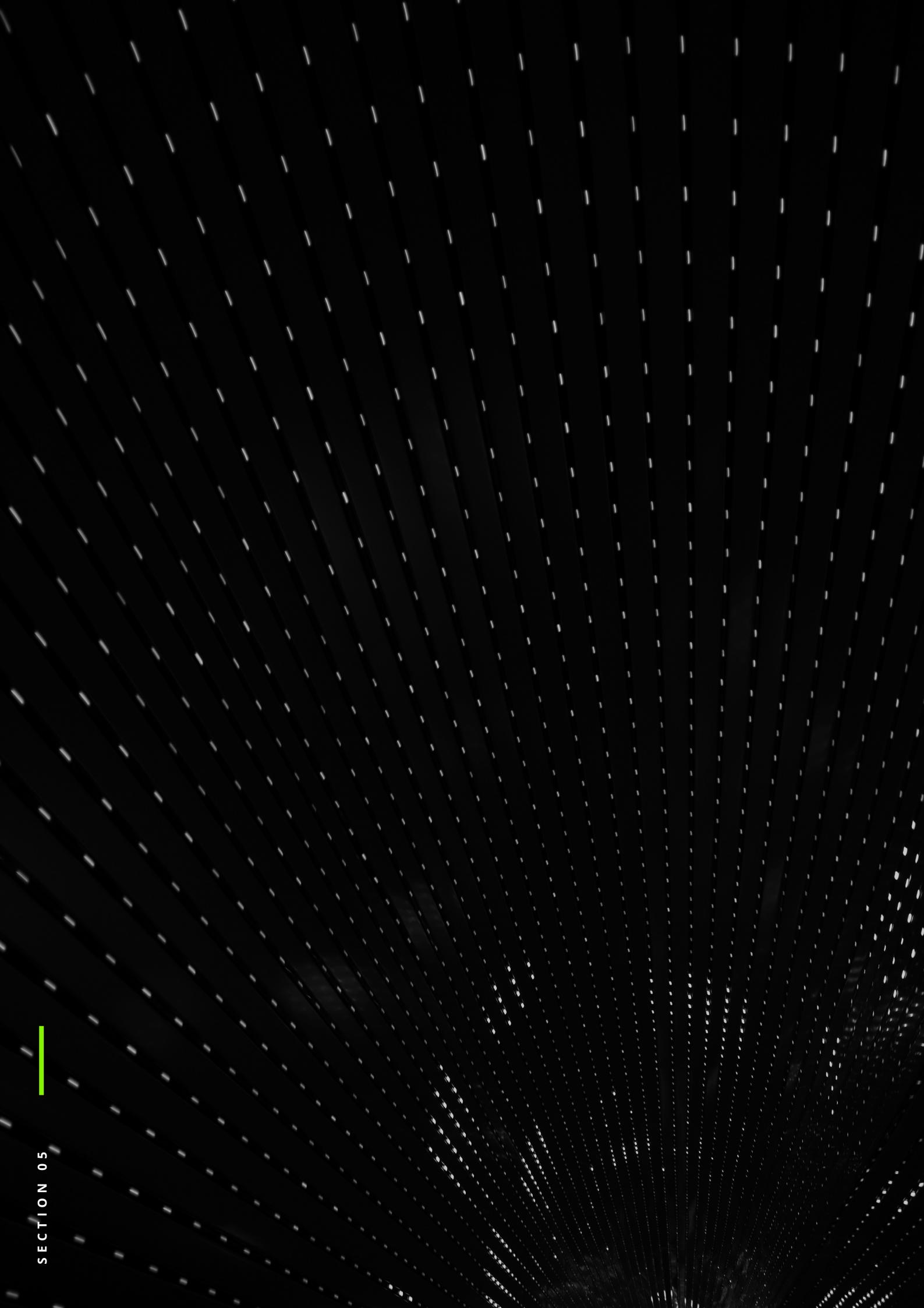
Scale number of use cases and customers served by solution

Iterate through Train and Test cycles to improve AI accuracy

Develop onboarding and training approach for customers and staff

Assess regulatory changes (when applicable) and adapt service or business model

Leverage Machine Learning to progressively automate the solution



Deloitte assets

Our industry leading tools and accelerators

Deloitte assets

Our industry leading tools and accelerators



Context

Deloitte addresses the challenge to interpret behavioural and emotional interaction in a voice conversation in order to deliver an impactful experience. It helps to understand both customers' communication style and suggest the next-best-action to agents in a centralised view.

Benefits

TrueVoice can improve customer satisfaction by benchmarking all interactions and empower agents to deliver a consistent experience. Additionally, it reduces risk by monitoring 100% of customers' interaction to enhance regulatory compliance.



Context

Deloitte recognises that content is vital for curating effective and valuable citizen experiences, including voice interactions. This tool enables voice search, search engine optimisation and integrating experiences with voice assistants or other new channels.

Benefits

The voice content analyser can assess the competency of a webpage content against voice engine optimisation metrics. It also provides actionable feedback to build readable and relevant content; supporting target customers to achieve their aims.



Context

Trust CX Tool is an analytic system that will monitor, in real time, performance and responses – the voice tools inform survey language, improve customer personas, segmentation and content relevance so you survey the right person at the right time to maximise response rates.

Benefits

The TrustCX tool can measure your initial baseline through 5 different areas: trust score, culture, KPIs, vulnerability and policy. It closes the customer feedback loop effectively and decisively on customer feedback with integrated case management capabilities, building trust for your customers.

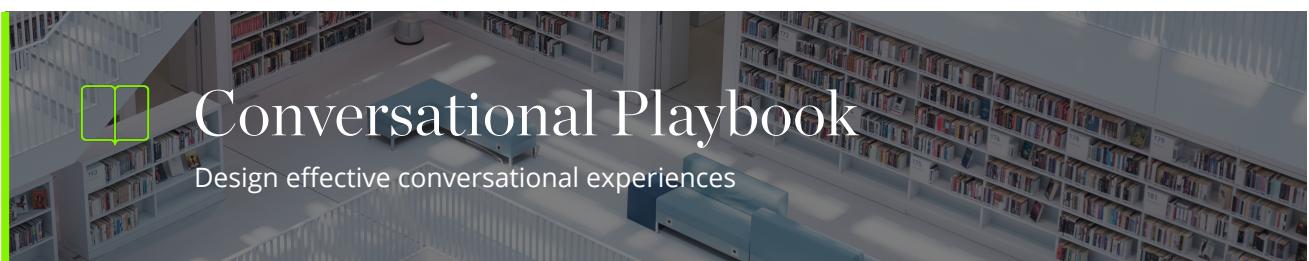


Context

Customised by industry, this tool enables deeply specific conversations that customers find most useful, it functions as a common conversational brain to enable consistent, accurate responses that are true to the brand.

Benefits

Conversational Accelerators allow for a “write once, deliver anywhere” approach. Cross-platform applications are able to be developed more quickly, and deliver better outcomes for customers across all conversational platforms.



Context

Alongside some of the world's most innovative brands, Deloitte has developed a playbook for selecting, testing, designing, and proving the value of conversational experiences that can be used to drive a consistent approach across the organisation.

Benefits

The Conversational Playbook provides a reusable and repeatable methodology for creating truly effective conversational experiences. It reduces the risk of running conversational initiatives, and provides proof-points to assist in the creation of business cases and for measuring success.

Success stories

How we've guided organisations on their Conversational AI journey



Success story

Financial services company

Context

Deloitte was engaged to help design and develop a chatbot to answer common questions. A conversational design strategy was developed and training across the organisation was rolled out in anticipation of broader adoption of the chatbot.

Benefits

In just a few months, the chatbot dealt with 14,000 interactions, resolving queries with a 90% accuracy rate. The chatbot has now been trained with more knowledge and includes a seamless transition to live chat where required.





Success story

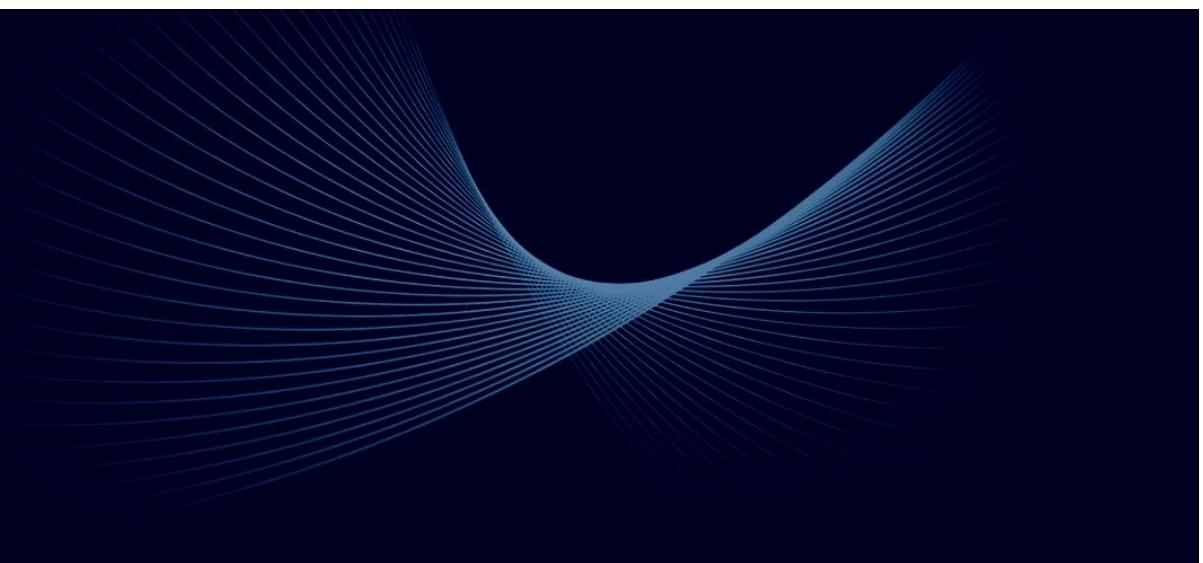
Telecommunications company

Context

Deloitte helped a leading telecommunications company to develop a Voice Interaction Design Playbook detailing the methodology and guidelines to create valuable voice interactions for the client's customers.

Benefits

The company now has a standardised approach to conversational design, including detailed steps and resources to guide and accelerate future voice projects. They also have a prioritised list of voice use cases to take to market which have been customer tested, are viably sound and feasible for a first release.





Success story

Voice-powered hospital care

Context

Deloitte built an AI enabled patient communication solution which allows patients to request assistance by simply speaking their request. AI prioritises and smart-routes requests to the right resources and nurses are alerted to requests.

Benefits

The product enables patients to receive an immediate response, confirming they have been heard and that a nurse is on their way. Patients can receive support in a timely manner, operate smart rooms and book appointments. It also helps nurses prioritise workflows, removing unnecessary activities, resulting in improved patient outcomes.





Success story

Voice design, build & launch

Context

Deloitte assisted Queensland Health to design, build and implement a new call centre solution using the Amazon Connect platform, automation, and chatbot integrations. Queensland Health's internal IT Support experienced high call volumes and in particular high volumes of password resets after long weekends from health employees who would forget their passwords.

Benefits

An integrated and intelligent solution was created with integrations to Active Directory, API calls to ServiceNow and the creation of call workflows. Average Call wait time has been reduced to 2 minutes and 30 seconds and abandonment rate was reduced to ~5%.





Success story

Chatbot design, build & launch

Context

Deloitte was engaged to develop a Chatbot to serve as a digital front gate for customer service via the website channel. The client sought to improve the demand management of customer service requests within its contact centre, where extended call wait times were leading to a frustrating experience for some customers.

Benefits

The Chatbot has helped retain users by removing several key customer pain points, such as limited operating hours. It has also helped to free up capacity within the contact centre.





Success story

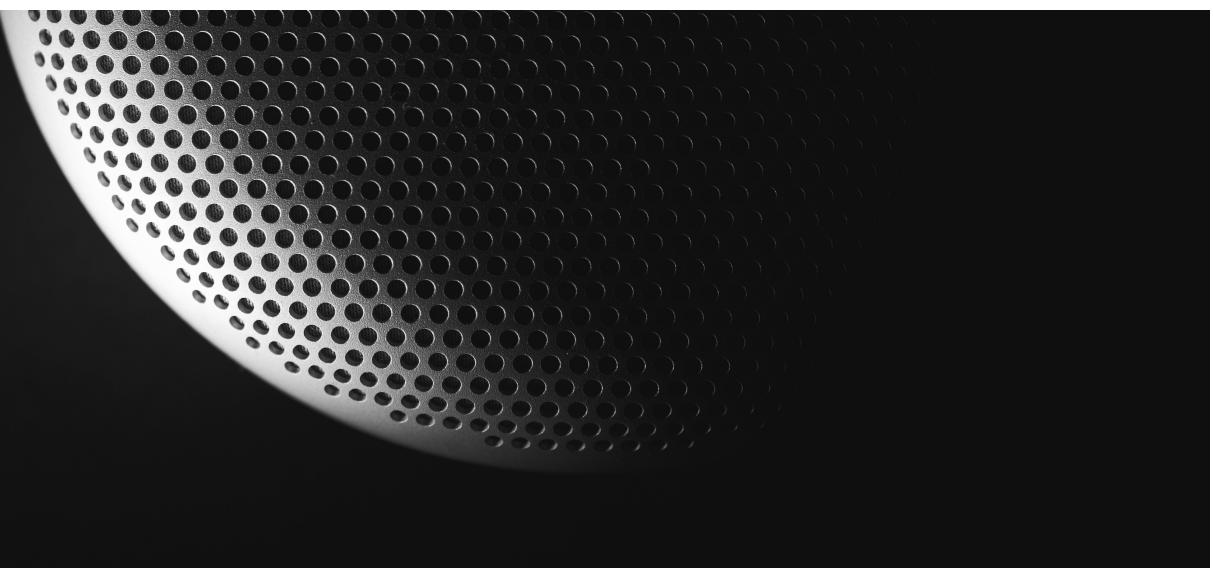
Voice proof of concept & scaling plan

Context

Deloitte worked with a NSW government agency to develop a proof of concept (PoC) to explore whether new customer contact technologies (Amazon Lex) could be used to improve capacity in a cost effective way that did not impact the customer experience.

Benefits

The PoC provided evidence for cognitive contact centre technology and its ability to provide a customer experience aligned with their brand. PoC tests indicated reductions of average handling time by 77%, with success rates that exceeded expected baselines. Use cases were then identified for scaling the cognitive technology, which indicated significant operational savings.



Act now

Unlocking the organisational value of Conversational AI

Act now

Many organisations swirl in an endless loop of proof-of-concept or trying tools labelled Conversational AI. They do not transform to change how they operate, what they provide, and the perception of their customers.



02 Experiment

- Organisations piloting use cases of Conversational AI in isolation rather than holistically along the business value chain to extend capabilities
- Still largely focused around same business, operating, and customer models
- Data-driven platforms remain aspirational



Don't get stuck here!



04 Optimise

- Business, operating, and customer models are optimised for digital and profoundly different from prior business, operating, and customer models
- Customer centric, data driven, platform based, and delivery focused
- Perception of the organisation has fundamentally changed and AI enabled ways of working are the norm

01 Explore

- Organisations examining the benefits for Conversational AI or have just purchased products
- Setting up the supporting system such as building the customer analytics platform
- No real change to the organisation or how it provides services or is perceived.



03 Scale

- Adapting Conversational AI across business units and becoming more synchronised and less siloed working
- Relevance demonstrated among wider ecosystem partners with more advanced changes to current business, operating and customer models
- Often new platforms established and becoming data driven



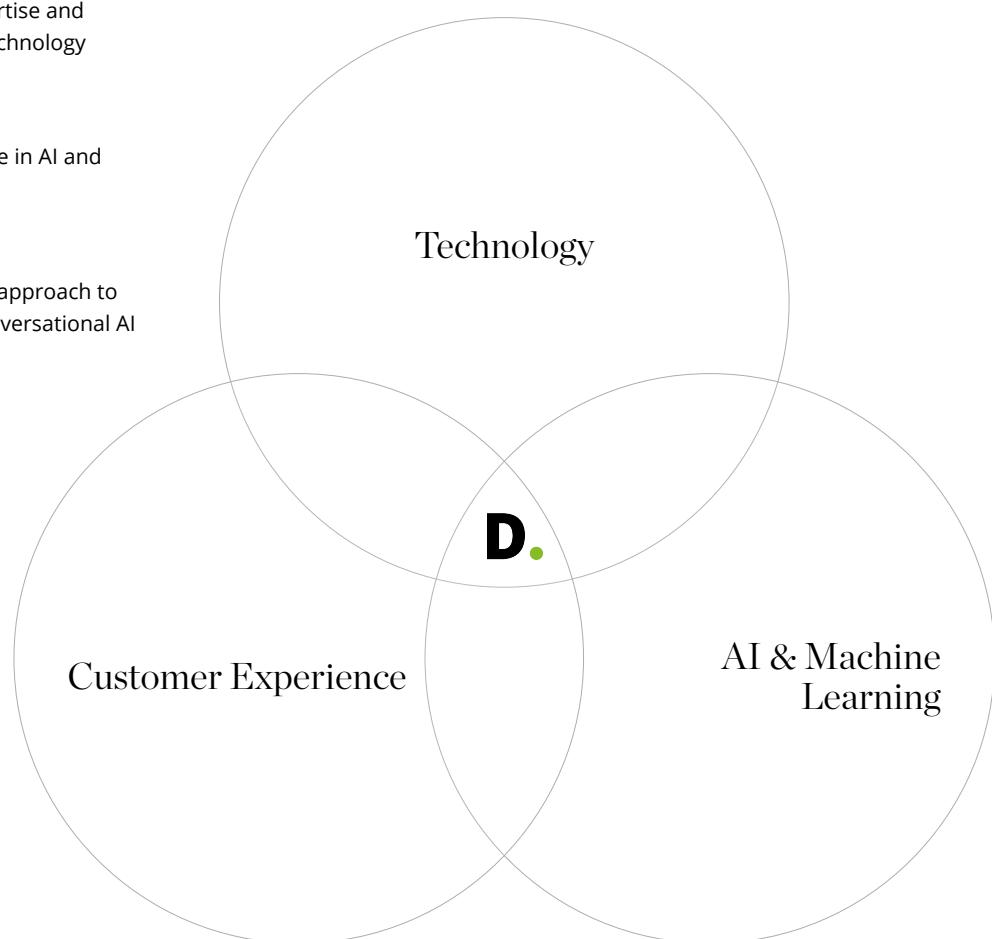
Our offers and team

Introducing our experts and how we can help

Why Deloitte?

We bring together dedicated expertise in technology platform implementation as well as AI and Machine Learning, underpinned by our focus on Customer Experience.

- 01** We have industry expertise and partnerships with AI technology providers
- 02** We have deep expertise in AI and Machine Learning
- 03** We take a human-first approach to designing effective Conversational AI



Our expertise

Ecosystem enabler

Our ecosystem of AI vendors, industry experts and experienced delivery teams enable us to offer end-to-end integrated services, from strategy, design, implementation and data and insights.

This allows us to genuinely answer the question our clients pose of 'Why Deloitte?' and differentiate us from our competitors.

Automation

Our Analytics and Cognitive practice gives Deloitte the capability to create more intelligent conversational experiences that deliver greater cost savings and customer outcomes over time.

We can combine our use cases to pass on the benefits to our clients, providing traction and giving us the ability to customise 'Out of the Box' solutions, or create our own.

Conversational User Experience

Our Conversational User Experience team determines that the customer is at the center of every conversational experience we create and deliver experiences that exceed expectations.

We can reduce the risk of conversational initiatives through understanding your customers and their needs, and using our design expertise to drive to a successful outcome.

A sample of our offers

| | Offers | Client Challenge | Unique Capabilities |
|---------------|---|--|--|
| 01 Imagine | AI lab | Defining where to get started with Conversational AI, including business and customer use cases. | <ul style="list-style-type: none"> - Conversational AI lab for execs including real examples |
| | AI strategy & roadmap | Building a strategy for Conversational AI and defining how to integrate with other channels to increase capacity, reduce costs, improve employee and customer experience. | <ul style="list-style-type: none"> - Metrics - PoC methodology - Chatbot front end accelerator - User testing guides |
| | Proof of concept (PoC) & proposition design | Understanding a unique proposition for the channel, defining what AI technology will work to support organisational outcomes and how it can be scaled. | <ul style="list-style-type: none"> - PoC methodology - Chatbot front end accelerator - User testing guides - Market Gravity - Voice design playbook |
| 02 Deliver | Technical delivery | Delivering new technologies, designing interfaces that work and building integrations to deliver seamless solutions. | <ul style="list-style-type: none"> - Conversational designers - Content specialists - Technical design and build - Integration with business-critical systems |
| | Omni-channel & operational diagnostic | <p>Optimising Cognitive AI solutions to increase revenue per customer, reduce churn and reduce cost to serve.</p> <p>Understanding the value and performance of the customer experience in real time through trust and sentiment analysis.</p> | <ul style="list-style-type: none"> - True Voice - Voice Content Analyser - Next best conversation accelerators - Conversational analytics dashboard - CX Trust tool |
| 03 Run | Manage and scale | Supporting the day to day technology and scaling the platform to more customers with new use cases. | <ul style="list-style-type: none"> - Conversational Designers - Technical design - Managed support and service |

Ready to have a conversation?

Let's chat.



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