How AI and Automation are Transforming Customer Experience

Generative AI and Automation technologies are fundamentally changing how contact centres operate.

This white paper examines how that is happening and what businesses need to do to maximise the benefits.

How AI and Automation are Transforming Customer Experience:

Generative AI and Automation technologies are fundamentally changing how contact centres operate. This white paper examines how that is happening and what businesses need to do to maximise the benefits.

Contents

Page

1. The future is human-AI collaboration 1

Why human-AI hybrid? 1

The role of BPO 2.0 2

2. AI and Automation Technologies 3

2.1 Generative AI chatbots 3

Cody, the pre-flight chatbot 6

2.2 Agent Assist Technology 7

2.3 Conversational Analytics 8

2.4 Workforce Management (WFM) on Autopilot 9

2.5 Back Office Automation 10

3. Building the future 11

Combining all the elements 11

Fiji – where people and technology meet 12

The AI-ready organisation 13

A journey, not a destination 14

1.0
The future is human-AI collaboration

Predicting the future of a whole industry often turns out to be a fool's game, particularly if you get it wrong. Just ask the former leaders of Blockbuster or Kodak. Or the IBM Chairman, Tom Watson, who in the 1940s predicted a world market "for about five computers."

Watson, of course, eventually had a famous AI named after him, IBM's Watson, which competed against and beat the all-time Jeopardy! champions back in 2011.

At the time, this impressive feat was heralded as a breakthrough in the ability of computers to process natural language, understand context, and generate accurate responses.

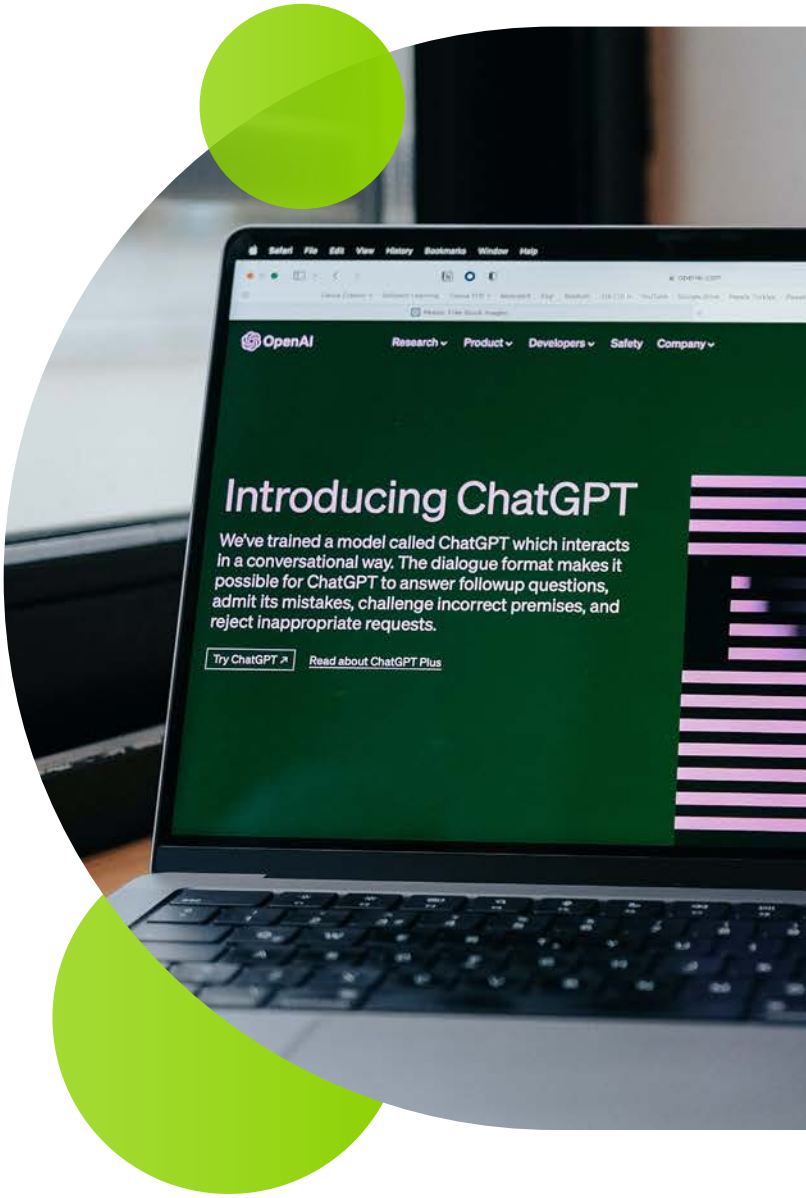
In retrospect, it took over a decade until the launch of Chat GPT at the end of 2022 to begin to deliver on that promise. Since then, Chat GPT has taken the world by storm, reaching 100 million users in just two months.

Why human-AI hybrid?

We are quite certain that Generative AI, like Chat GPT, and the other automation technologies coming to the market would be able to handle most customer service interactions on their own. Given enough time.

But that would not necessarily make for the best Customer Experience (CX). And improving CX, as measured by metrics such as Customer Satisfaction (CSAT) and Net Promoter Score (NPS), is the ultimate goal of customer service.

Even though Gartner estimates that Large Language Models (LLMs) could cut contact centre labour costs by $80 billion, and a Zendesk survey found that 67% of customers prefer self-service, no mainstream contact centre will fully automate.



Copyright © 2024 Mindpearl (Pty) Ltd.

There will always be customers who prefer to speak to a human agent, or customers with challenges or problems that require human intervention, or the empathy and shoulder to lean on that only a fellow human can provide.

For these reasons, the future is not AI versus humans, it's about them working together. A Nielsen Norman Group study found that AI-assisted agents handled 14% more customer interactions per hour – which adds up to an astonishing saving over hundreds of thousands of customer contacts.

The challenge lies in striking the perfect balance between AI and human assistance. Contact centres have historically been hotbeds of innovation as they seek to provide customers with the highest level of service and CX while balancing that with the need to manage costs and deliver a return on investment (ROI) for the company.

They have pioneered many new technologies over the years, including ACD, IVR, omnichannel, and now, AI.

In this white paper, we examine the new AI and automation technologies that are being adopted in contact centres now and over the next five years.

The role of BPO 2.0

BPOs have traditionally focused on providing clients with human resources to operate the outsourced contact centres and back-office functions they manage.

While BPOs need a robust IT infrastructure, they are often asked to integrate with and utilise their clients' technology. This "bring your own technology" (BYOT) model made sense when clients had already invested in proprietary technology to run their businesses.

When it comes to the AI and automation technologies businesses will adopt over the next few years, this is mostly not the case – those investments have yet to be made.

This represents an enormous opportunity for businesses working with BPOs to engage in proactive collaboration. BPOs and clients will co-develop AI, automation, and AI-human hybrid solutions, tailoring them to their specific needs and industries.

Partnering with an experienced BPO offers several advantages: Access to expertise and experience: BPOs have the CX domain knowledge and technical know-how to help clients create market-changing bespoke solutions.

Shared investment: AI and automation require considerable investment. BPOs can shoulder much of the capital expenditure (Capex) required and effectively lease it to their clients on a pay-as-you-go basis (Opex). Technology can also be shared among multiple clients, further spreading out the investment costs.

Reduced risk and faster deployments: Working with a BPO it is easier to pilot and refine AI solutions, minimising the risk associated with innovating. Roll-outs can potentially happen faster as the BPO can allocate more resources, or shared resources, to accelerate implementations.

Learning from a wider ecosystem: With their multiple clients, BPOs act as hubs of knowledge and innovation, allowing the businesses they work with to learn from one another.

Copyright © 2024 Mindpearl (Pty) Ltd.

2.0
AI and Automation Technologies

Most businesses today have a strong drive to manage costs and ROI while maintaining or improving their service levels to win and retain customers. The difficult economic conditions and cost of living crisis have, if anything, made customers even more picky and more reluctant to hand over their loyalty.

For its annual State of the Connected Customer report, Salesforce surveyed 17,000 customers across the globe. 86% of consumers and 91% of business buyers said the experience of dealing with a company is just as important as what the company sells.

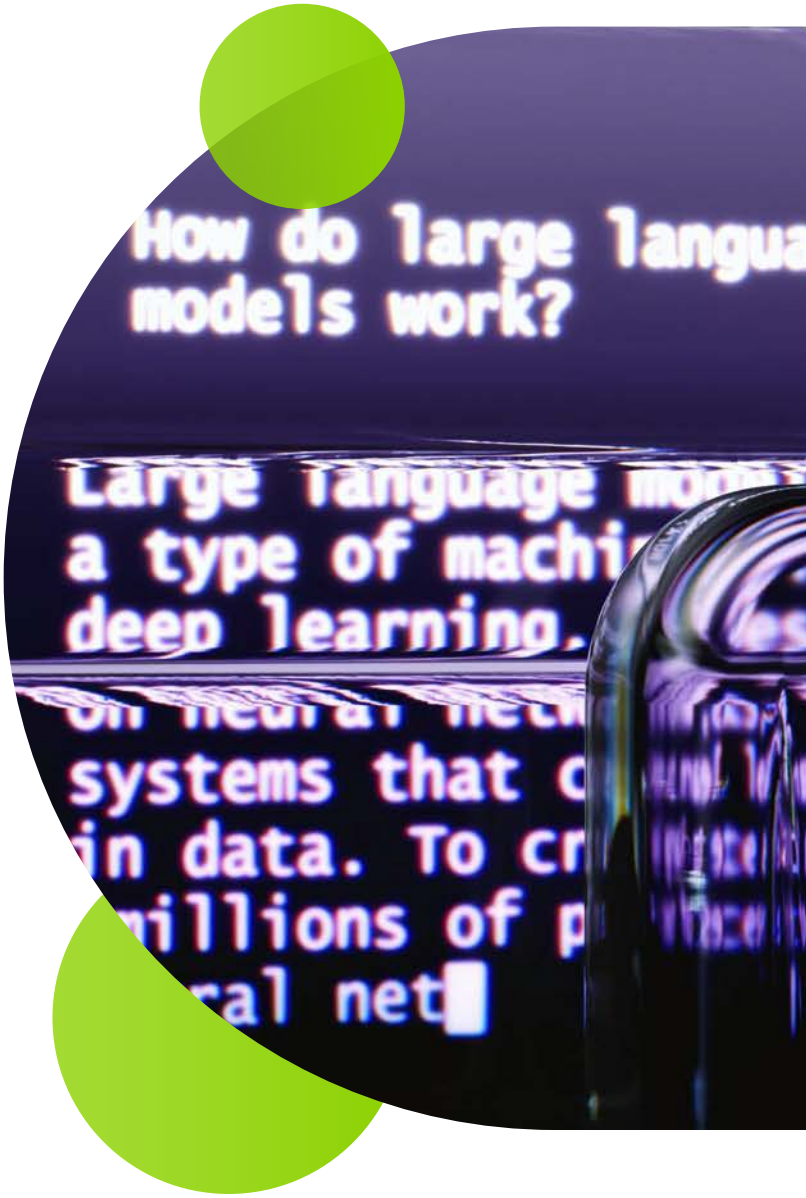
For this reason, it's not surprising that 81% of executives agree that the experience they offer is a significant source of competitive differentiation.

As the commercial pressure increases, so does the imperative to adopt new technologies to improve efficiency and CX. In this section we will look at some of the AI and automation solutions contact centres are adopting to deliver for both their customers and their businesses.

2.1 Generative AI chatbots

Until the recent arrival of Large Language Model (LLM) chatbots like Chat GPT, most bots and Virtual Assistants deployed in contact centres could respond only to a limited range of questions. Both questions and canned responses had to be pre-programmed.

Now, thanks to the wonders of Machine Learning, Natural Language Processing (NLP) and the latest LLMs, we have a new generation of chatbots capable of parsing natural language, identifying intent with uncanny accuracy, and responding with conversational fluency.



Copyright © 2024 Mindpearl (Pty) Ltd.

Benefits and uses

Contact centres are deploying AI chatbots in the following roles:

- **Greeting and routing:** Chatbots are perfect as the first line of response in contact centres, where they can greet the customer, ask about their query, and then direct them to the most appropriate resource. They can also manage customer identification and then send a summary of the customer's information and query to the human agent, speeding up the interaction.
- **Handling routine interactions:** Increasingly, there is no need to hand over to a human at all as the chatbot can handle the whole interaction. Many consumers are used to interacting with bots like Siri and Alexa in their homes, so chatting or speaking with a bot is becoming more widely

While there can be considerable set-up costs, mainly due to the amount of data needed to train a chatbot to competency, the ongoing operating expenses of AI chatbots are much lower than those of human agents.

Research by consumerfinance.gov discovered that chatbots were saving banks and other financial institutions 70 cents per customer interaction, or over $8 billion per year.

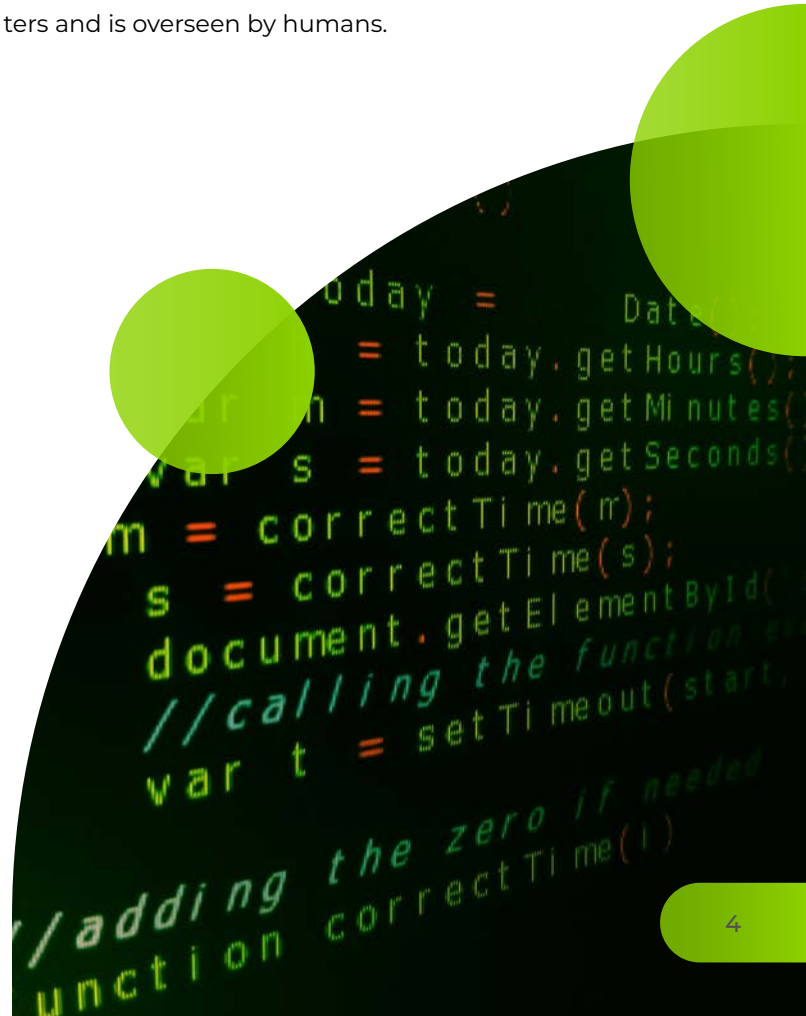
As the number and variety of use cases increase for this new generation of chatbots, the cost reductions will only become more impressive.

Risks and how to mitigate them

We have all heard stories of chatbots that have gone wrong and had to be pulled from use because they contained unintentional biases against certain segments of the population in their training data. No brand wants the negative impact that would come from its customer service representatives being insulting to customers.

Even though all the chatbots that went rogue were from earlier generations, there are also concerns about the latest LLM-based bots such as Chat GPT, which are known to hallucinate responses. They can confidently give information that sounds plausible but which, upon checking, they have completely fabricated.

While the thought of ceding customer interactions to chatbots that are capable of giving out inaccurate information, or making up outright lies, is a little nerve-wracking, these risks can be minimised with a properly trained and set-up bot that works within strictly defined parameters and is overseen by humans.



Copyright © 2024 Mindpearl (Pty) Ltd.

How to set up an AI chatbot

Rigorous training and fine-tuning:
It is unlikely you will deploy a publicly available chatbot such as Chat GPT in your contact centre. Instead, you will build your own GPT (Generative Pre-Trained Transformer) bot and train it on a dataset specifically curated for your business and customer service scenarios.

Regular updates and maintenance:
Continuously update the training data with new information, customer interactions, and customer feedback to improve the chatbot's understanding and responses.
Implement safeguards: Use filters and keyword detection to prevent the chatbot from using or responding to offensive language or sensitive topics.

Human oversight:
Create a system that enables a human agent to take over the conversation, for example if the chatbot fails to understand the query or provides incorrect information. You should regularly review chat logs to identify and correct any issues.

Confidence scoring:
You could also implement a system where the chatbot assesses its confidence in its responses – if below a certain level it should escalate to a human agent.
Security measures: Encryption of the data exchanged between user and chatbot, secure authentication methods, and regular security audits all protect against breaches and ensure data privacy.

Limit its scope:
Define clear boundaries for what your chatbot can and cannot do to ensure it is not making promises or statements that could be legally or ethically problematic.

Testing and simulation:
Before deploying your chatbot, or after updating its training, test your chatbot extensively in various scenarios to ensure it responds accurately and appropriately.

Work with a partner:
Most contact centres are unlikely to deploy an AI chatbot on their own but will work with a vendor or BPO partner or use the API capabilities of a company like Open AI, which makes its Chat GPT technology available to developers to build their own bots.

Copyright © 2024 Mindpearl (Pty) Ltd.

Cody, the pre-flight chatbot

Meet Cody, an AI chatbot run by Mindpearl that functions as a HelpDesk for pre-departure queries for customers of a global airline.

Cody uses NLP and LLM to understand intent and generate accurate responses for customers. It has been trained on a wide array of customer data and past interactions, as well as a comprehensive knowledge base, which allows it to answer queries on:

- The most essential information from the website
- Check-in procedures
- The safety manual
- Requesting assistance for a person of reduced mobility
- and so much more...

The benefits of Cody include:

- Cody works 24/7
- No waiting time to speak to Cody
- Multiple requests can be handled simultaneously
- Cody even speaks each customer's language
- As Cody learns, the new data is stored, keeping company information up-to-date
- Analytics give valuable insights into customer preferences, needs and pain points.

Agents can focus on more complex and value-added tasks as routine enquiries are handled by the bot. Within 2 weeks of the pilot, our in-house development team based in Fiji had implemented the chatbot across the entire department. Within 4 weeks, Helpdesk Agents' workload reduced by 41%, and AHT (average handle time) decreased by 5%.

Copyright © 2024 Mindpearl (Pty) Ltd.

2.2 Agent Assist Technology

Rather than replace human agents in the contact centre, most people believe AI will assist and empower agents to deliver better results more quickly and efficiently.

AI chatbots can act as a co-pilot and provide real-time support to agents. From summarising calls to expediting wrap-up times to suggesting relevant knowledge base articles on the fly, AI agents become virtual sidekicks, boosting productivity and operational KPIs.

Benefits and uses

In the human-AI hybrid contact centre, technology supports human agents in several important ways:

Agents focus on complex interactions: With chatbots handling routine enquiries, human agents are freed up to focus on those more complex interactions which add value to customer relationships. It means that:

- Vulnerable customers get the attention they need
- Tricky problems benefit from human problem-solving and common sense skills
- Human agents focus on creating an emotional bond between the brand and customer beyond the transactional, which drives loyalty.

Co-piloting: During customer interactions, agents need access to lots of information about the customer, about products and services, and about processes. Too often agents have to go look for what they need while the customer waits.

- A GPT AI co-pilot can follow the interaction and suggest the appropriate information or the next best response to agents as they go.
- Agents can question the AI, using it to search the knowledge base or pull data from other systems.
- The results are reduced handle time, improved first-call resolution, and more satisfied customers.

Hugely reduced wrap time: Generative AIs are very good at understanding the meaning and intent of spoken or written words. As they're also good at writing, it makes them excellent summarisers.

- Save an incredible amount of time in wrap by having AI write an automated summary of every call or chat to append to the customer record.
- A saving of just 30 seconds to 1 minute of wrap time per interaction quickly adds up to a considerable efficiency gain and cost saving.

Risks and how to mitigate them

As with any technology, there are risks. Agents who lean too heavily on AI crutches may find their own skills, particularly critical thinking and initiative, dwindling. This can lead to a drop in employee experience (EX) as agents feel their autonomy diminishing. There is also the risk of AIs hallucinating responses or amplifying biases in their training data.

- **Training and guidelines:** Your policies should specify when it is suitable to use an AI, and which ones, and when it is not. Staff should be aware, for example, that providing Chat GPT with confidential company or customer information is not secure.
- **Fact-check and proof-read:** Staff should learn not to take chatbot output at face-value but check it for accuracy and proof any emails or chat responses before sending them.

Copyright © 2024 Mindpearl (Pty) Ltd.

2.3 Conversational Analytics

While CSAT and NPS surveys have their place, customers tell you what they think every day through their interactions and behaviour. Releasing all the data locked up in your past customer interactions is what AI-powered Conversational Analytics is all about.

Benefits and uses

Conversational Analytics technology can transcribe and understand what's said in call recordings and live chats, recognise intent and emotional tone, identify the entities (such as brand names and products) mentioned, pick out recurring themes and topics, and even detect anomalies that might indicate fraud.

Some of the benefits of Conversational Analytics include:

- Scoring each interaction for quality and compliance purposes – a dramatic improvement on traditional 'listening in' which only scores around 2% of calls.
- Gaining insight into customers by discovering patterns and trends in their behaviour and sentiment. Predictive analytics can even extrapolate future behaviour from past data.
- With a greater understanding of customer needs, contact centres can proactively address issues before they become major concerns – potentially before customers are aware of them.
- As 100% of interactions can be analysed and scored, team leaders and trainers have access to more information about individual agent performance than ever before. This can allow them to create performance programs and individualised training.
- Conversational Analytics can also uncover information about individual customers that you can use to create personalised offers and customer journeys.

Risks and how to mitigate them

Bias and inaccuracy: There could be biases either in the data being analysed or in the design of the Machine Learning algorithms which power Conversational Analytics. Human speech also contains many nuances, such as sarcasm or idiomatic expressions, which can be challenging for an AI to interpret accurately.

Privacy concerns: Ensure sensitive customer information is not inadvertently collected, stored, or analysed without proper consent by adhering to data protection regulations. Storing large volumes of conversational data could also present a risk of a data breach, so security protocols must be in place.

Dependence on technology: Analysts, managers and frontline agents should not rely solely on the data from analytics to make decisions. People can, and should, use their more nuanced understanding of human behaviour to interpret data themselves.

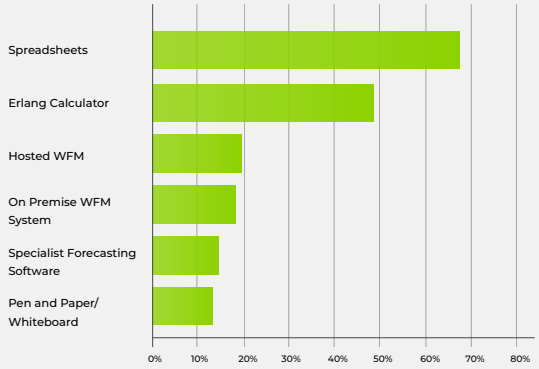
These risks can be overcome by actively working to identify and remove potential biases and inaccuracies in the analytics process, by implementing robust data protection measures, and being transparent with customers about data usage.

Copyright © 2024 Mindpearl (Pty) Ltd.

2.4 Workforce Management (WFM) on Autopilot

A critical function in the contact centre is forecasting customer demand and ensuring just the right number of resources are on hand to handle it.

Imbued with AI and Machine Learning capabilities, modern Workforce Management (WFM) software can crunch the numbers, make accurate predictions, and compile schedules almost without human intervention. Yet despite that, 67% of contact centre leaders are still hunched over spreadsheets making predictions manually.



Source: Callcentrehelper.com

With the rise of remote working and with the majority of contact centres now handling multiple digital channels in addition to voice, forecasting and scheduling have become more complicated as there are more factors to consider and more work queues to manage.

Leveraging technology such as Machine Learning – better than any human at spotting patterns and making predictions – is becoming necessary.

Benefits and uses

AI-enabled WFM software automates many previously manual tasks, including:

- Forecasting demand based on historical data
- Creating shift schedules and communicating these to staff via an AI chatbot
- Allowing staff to respond via the chatbot to alter their shifts
- Intraday management and allocation of resources to different teams and work queues
- Daily reporting and schedule adherence analytics
- Using Machine Learning to analyse interaction patterns and NLP to analyse their content in order to give deeper insights into what is driving demand.

Risks and how to mitigate them

To achieve these operational and CX gains, WFM requires lots of accurate data from all areas of the business. The risks of poor data can be mitigated by collaborating closely with other departments:

- Forecasting based on historical data can be quite accurate, but enterprise-wide is needed to anticipate marketing drives, product recalls or other demand drivers.
- Accurate profiles of employees and their skills are needed from HR so the WFM team can allocate staff appropriately.
- While the AI technology can do most of the grunt work, human oversight is needed to check both the data used as input and the WFM software's outputs.

Copyright © 2024 Mindpearl (Pty) Ltd.

2.5 Back Office Automation

Various AI technologies are being used to streamline mundane administrative tasks in the contact centre – such as data entry, document processing, and order taking – and also fully automate what happens behind the scenes long after the agent has moved on to their next call or chat.

Benefits and uses

Multiple AI and automation technologies are used in the back office:

Robotic Process Automation (RPA): Used to automate rules-based, repetitive processes like data entry, form filling, and document handling, improving operational efficiency and reducing manual workloads. Increasingly, AI is being used to improve processes before automating them and to create more intelligent bots.

Intelligent Document Processing (IDP): Leverages AI technology such as OCR (optical character recognition) and NLP (natural language processing) to read and process documents. IDP can extract data from forms and emails, populate documents such as PDFs, emails, letters, or order forms, and generate despatch documents for fulfilment.

API-Driven Automation: Modern software and cloud services can 'speak' to one another via APIs (Application Programming Interfaces). Linking different systems together enables complex tasks that might require the involvement of multiple platforms to be automated, making them more efficient and seamless. Generative AI is increasingly used in the programming and testing of APIs to build more complex and innovative solutions more quickly.

The benefits of back office automation are palpable:

- Streamlined workflows that eliminate bottlenecks and delays.
- Improved KPIs that reflect a more efficient and less labour-intensive operation.
- Happier and more productive employees, unshackled from the burden of repetitive manual tasks and able to focus on customers and adding value.
- More satisfied customers, as their queries get handled more quickly and efficiently.

Risks and how to mitigate them

AI and Automation are not a panacea. If your processes before automation are inefficient, then automating them will only bake that inefficiency into your business.

- Before automating any business process, it's essential to analyse and optimise it properly – which can be done using AI tools – before handing it over to a bot.
- Leaders should also be wary of getting locked into a technology that could be superseded as new solutions come to market.
- Design systems that can pivot and evolve as business requirements, customer demands, and available technology shift.

Automation is a tool, not a destination, and its purpose is to empower your workforce, not replace it.

Copyright © 2024 Mindpearl (Pty) Ltd.

3.0
Building the future

So far, we have seen how AI and automation technologies are helping create the contact centre of the future, and what each can be used for.

The picture that emerges is of a contact centre that has become an efficient hub where highly skilled, empathetic human agents work hand-in-hand with AI systems and automation technologies to solve problems for customers and get things done. Importantly, humans retain their place at the very heart of this operation. Their contribution is absolutely required for multiple reasons:

Human expertise: The AI and automation technologies we have looked at all require human oversight to ensure the data they take as input and the data they produce as output are correct. Your human staff might not be able to crunch numbers as quickly as an AI, but they are domain experts and they know what results the business needs.

Relationship building: A fully automated contact centre might well be efficient, but it wouldn't be able to fulfil its primary purpose, which is to create a bond between the brand and customers. People do not remain loyal to businesses purely based on price and convenience – we also pay attention to our emotions, biases, and past experiences when making decisions. This is why humans must remain in the CX loop, as customers develop connections with humans, generally not (at least not yet) with robots.

Copyright © 2024 Mindpearl (Pty) Ltd.

Fiji – where people and technology meet

The Pacific paradise island of Fiji is well-known as a popular tourist destination, but did you know it is also becoming one of the world's leading offshore outsourcing destinations for everything from contact centres to back office processing to accounting?

In fact, it is Fiji's status as a tourist attraction which makes it perfect for outsourcing. Fiji's friendly, English-speaking people have a customer service ethos from generations of welcoming travellers to their island.

The annual influx of visitors has also led the country to build an impressive infrastructure, including high-speed telecoms and internet connectivity.

For these reasons several high-profile global businesses, such as ANZ Bank, have chosen to locate APAC contact centres in Fiji. The BPO sector is projected to more than double in size and reach USD 141 million by 2025.

In a recent survey by Matchboard, BPOs in Fiji reported early adoption of AI initiatives such as:

- Using Generative AI to create content – blogs, tender responses, website and marketing materials
- Using AI to assist with the assessment of job candidates
- Experimenting with AI tools to translate to and from a European language to manage customer email inquiries
- Partnering with a Conversational AI vendor to provide human overflow customer service.

At Mindpearl our AI initiatives include the chatbot Cody, which answers pre-flight questions for the customers of a major airline.

Fiji's tech-savvy BPO workers are generally educated to tertiary level in IT, business and communications, equipping them with the skills to deploy and work with AI and automation technologies.

The AI-ready organisation

Whether your business operates its own contact centre, or works with a BPO, you need solid foundations in place to be able to deliver the human-AI hybrid model that will enable you to optimise both operational efficiency and CX. These include:

- **Robust Technology Infrastructure:** Cloud-based infrastructure enables you to integrate your systems with new technologies such as the AI and automation technologies coming to market now. Look for vendor-agnostic platforms that enable you to readily adopt new tools through APIs.

- **Technical Expertise:** While you can work with a variety of specialist vendors to put in place best-in-class solutions for different functions, you should also be able to rely on internal technical experts who have a birds-eye view of how everything works together. A BPO can be a great help here as they can give you access to experts across multiple domains.

- **Customer-Centric Culture:** Technology alone is insufficient. Your team, whether internal or external, should have a proven track record of CX success, demonstrated through improvements in KPIs, and a culture that prioritises both employees and customers.

- **AI Leadership:** This could take the form of a new executive role at C-Level, such as a Chief AI Officer, or the establishment of a leadership committee of domain experts from different departments. Their role is to ensure that AI and automation initiatives fully align with the company's strategic objectives.

- **Specialised AI/Automation Teams:** These multi-disciplinary teams will specify, develop, and deploy new technologies to accelerate your AI and automation journey. They should include non-technical people from operations, HR, QA, compliance, finance and – importantly – those who understand what is needed from the customer's point of view in terms of CX.

- **Data and Analytics:** All AI initiatives have one thing in common – a thirst for data. The first major task is to collect your company's historical data – transactions, interaction recordings and transcripts, customer metadata, Voice of Customer feedback data, CSAT and NPS survey data, and so on. Next, it all needs to be structured and tagged correctly so that the AI can be trained on it. Collecting and tagging all that data is likely the biggest AI and automation blocker for most organisations.

- **Employee Upskilling and Retraining:** Prompt engineering – essentially, what you ask the AI to get a good response – is both an art and a science, as what you get back from the AI depends very much on what you put in. Everyone, from agents to analysts, must be trained to work with LLMs and other AI systems.

- **Embrace New Roles:** Whether you train them internally or recruit externally, you will need to hire people to fill new roles. These include AI trainers who translate your business functions and processes into prompts and train your AIs, and also monitor the output of AI co-pilots, customer-facing chatbots, and RPA bots, checking them for quality and compliance.

Copyright © 2024 Mindpearl (Pty) Ltd.

- **Embrace Collaboration:** The transition to the AI and automation-enabled future is too big a task for any one department or business to take on alone. Think about how you can facilitate the creation of inter- and intra-company collaborative spaces where people can work together to spot AI opportunities and pilot new programs. For example, you can collaborate with both suppliers and customers to identify opportunities.

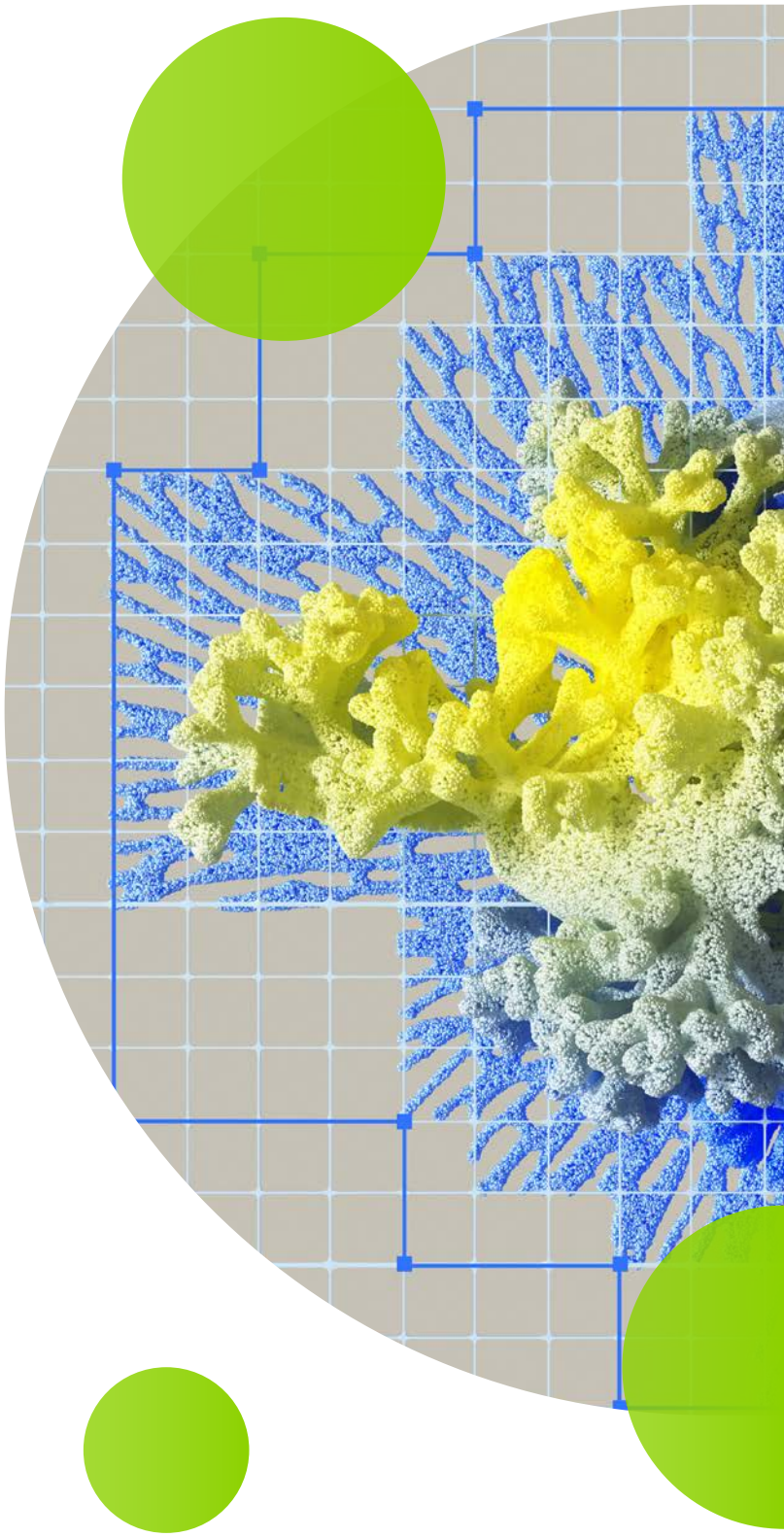
A journey, not a destination

Organisations which fail to embrace change and new technologies end up failing.

The future will belong to those organisations that achieve the appropriate blend of automation with the human touch for their market and audience.

Capitalising on AI and automation means embracing continuous transformation and remaining flexible enough to adopt new technological advances as they become available. Cultivate a culture of continuous learning, and invest in ongoing training and reskilling to ensure your workforce remains agile and fluent in the ever-changing language of AI.

And remember, this is a journey into the unknown on which the whole of humanity is embarking, not just your business and your customers. Embrace it.



Copyright © 2024 Mindpearl (Pty) Ltd.

About Mindpearl

Mindpearl was established in 1999 as a captive contact centre providing seamless 24/7 customer support services in multiple languages. This was to both customers and passengers of a consortium of 11 European airlines headed by Swissair. Over the years, we have diversified and currently provide 24/7 multilingual contact centre services to global names in industries such as aviation, travel, telecommunications, retail and finance.

Mindpearl is a company built on human connections and the value we place on our employees, their experience and the relationships we have with our clients and their brands is clearly articulated through our brand and identity moto:

“Our people, your brand”

This is proudly reverberated throughout our global centres and inherently drives our approach to business and is embedded in our company culture

Global Locations

MINDPEARL CAPE TOWN

Address
7 West Quay Road
V&A Waterfront
Cape Town 8002
South Africa

MINDPEARL SUVA

Address
Kalabu Tax Free Zone
Daniva Road
Valelevu, Nasinu
Fiji Islands

MINDPEARL LIMA

Address
Av. Paseo de la República
3617
Oficina 901
San Isidro
Limas

MINDPEARL NAMIBIA

Address
Mindpearl Contact Centre
Namibia (Pty)(Ltd)
PO Box 81905
Olympia Windhoek

ENQUIRIES: askus@mindpearl.com

Copyright © 2024 Mindpearl (Pty) Ltd.