The best customer experiences are built with Zendesk. Zendesk’s powerful and flexible customer service and engagement platform scales to meet the needs of any business, from startups and small businesses to growth companies and enterprises. Zendesk serves businesses across a multitude of industries, with more than 125,000 paid customer accounts offering service and support in more than 30 languages. Headquartered in San Francisco, Zendesk operates worldwide with 15 offices in North America, Europe, Asia, Australia, and South America. Learn more at:

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The latest technology developments mean companies are finding fresh ways of talking to their customers. This report is a guide to this new era for customer service.

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Get ready for the customer service revolution

Artificial intelligence, chatbots and other technologies may finally give consumers the support they expect

EMMA WOOLLACOTT

As millennials overtake baby boomers as the most populous generation in the world, organisations are realising they need to communicate with Generation Y on their own terms – and through their preferred channels of communication.

This has meant a shift away from the old methods of customer communication such as post or even email, and the introduction of new channels such as social media or chatbots.

And while a survey late last year from Drift, SurveyMonkey Audience, Salesforce, and myclever found that only 15 per cent of consumers had used chatbots to communicate with businesses in the previous 12 months, the companies point out that this represents a full quarter of consumers who have engaged with a brand in the past year.

However, there’s still a long way to go, with nearly a third of customers saying they don’t trust chatbots not to make mistakes and one in ten saying they wouldn’t use one to make an expensive purchase.

As a result, Priya Iyer, chairman and chief executive of customer engagement platform Vee24, predicts the future of chatbots lies in more personalised engagement.

“The next generation of bots will be focused more on establishing a relationship between a brand and a customer or prospect. Each interaction with a customer will make the bot better informed and personally connected to the customer,” Ms Iyer says.

“In addition, bots will become effective at proactively initiating conversations with a customer, rather than just reactively responding to a request.”

Key to this will be artificial intelligence and machine learning, says Shashi Nirale, senior
In addition, bots will become effective at proactively initiating conversations with a customer, rather than just reactively responding to a request.

“...the brake, the car moves forward – and make security updates,” says a spokeswoman.

Following Hurricane Irma last year Tesla was able to upgrade remotely the range of many of its vehicles to enable them to get out of the danger zone on a single charge.

However, research and advisory firm Gartner says organisations need to be wary of introducing IoT technologies willy-nilly.

“What seems a simple improvement of the [customer experience] may require an unexpected commitment of time and resources,” says Partha Iyengar, Gartner vice-president and fellow. “CIOs will have to think out all the effects on the organisation before advocating a particular IoT addition.”

Working with these new technologies will mean empowering customer service staff to concentrate on hard-to-resolve enquiries.

Mr Nirale says: “Companies will have specialist hubs where call handlers will be trained to deal with more complex queries, offering compensation to a disgruntled customer, rewarding a happy customer, or connecting with an unengaged customer to improve relations.”

There’s a fine balance between automation and the human touch, says Tim Dimond-Brown, vice-president, sales and operations, at customer experience firm Quadient.

“Whether it’s stepping in to clarify an answer a chatbot gave about an insurance policy, or verifying that a bank transfer made through Facebook Messenger has actually gone through, the customer service team must be in a position to quickly find out the facts, and resolve any issues that have occurred,” Mr Dimond-Brown says.

“No matter how advanced technology becomes, humans will always be needed as the last line of defence in the customer experience process.”

Emma Woollacott is a specialist technology writer, contributing to Forbes, the BBC and many other publications.
Integration is key to a better view of the customer

Omnichannel communications provide a seamless consumer experience and empower staff – but planning is vital.

The phrase omnichannel communication strategy can sound technical and intimidating, but I am a passionate advocate of the human benefits it can bring to us all.

With the wide range of communication channels available today – from online web forms to phone, email, chat and video calls – your customers want to contact you whenever and however they wish. An omnichannel solution allows you to choose whichever channels suit you and your customers best and to integrate them, enabling a seamless...
3% of companies consider revenue growth as the main driver for contact centres

90% of companies consider improving customer experience as the main driver for contact centres

Deloitte Global Contact Center Survey 2017

experience for the customer and creating a mine of useful data for your business.

These solutions are increasingly popular as the benefits become clearer. But businesses often still lack understanding about how to implement them in a way that provides maximum benefit to users and staff.

Whether your customers are business to business (B2B) or business to consumer (B2C), omnichannel solutions make you more approachable and easier to communicate with; and they help you smooth and shape the customer contact journey.

As well as giving customers choice, they also help your staff pick the best communication method to support a query. For example, they can widen a one-channel discussion seamlessly, perhaps showing the customer on a screen-sharing how to resolve their problem, so they don’t have to contact you again.

But that is just the beginning. The development of data analysis and artificial intelligence is making integrated communications far more powerful – provided you remember to bring the people who use it on the journey with you.

Our experience shows that, across the board, customers prefer finding the answer themselves rather than having to contact a support centre. In the Zendesk suite of solutions, self-service has become so powerful that we treat it as an extra communication channel.

There are community spaces, and a public channel for customers to help each other. But the system also empowers agents who deal with large volumes of queries to curate their own content.

For example, with Zendesk an agent can chat with a customer, then create an article linked to that case to enable customers with the same problem to self-help in future. Zendesk’s Pathfinder tool then shows them where customers have been on their website looking for information. If they have not found the answer to their query, agents can then include that information in the best place for customers to find it.

Our artificial intelligence Answer Bot integrates with this system and will offer customers a range of articles that can help them resolve the query themselves. The AI also allows agents to understand where different customer requests end up and how to get them there more quickly.

Before you implement an omnichannel strategy, start by looking at the type of queries that your customers generate, and how they tend to contact you today. Consider which channels are suitable for your customers – some might not work if you have a specific market niche, for example. Then think about how you want to influence customer behaviour and which mix of channels will help you do that. Zendesk’s suite allows businesses to pick and mix channels according to their needs.

Next, research how people tend to use the channels you want to use, what they expect of them, and what service level agreements
you want to set for each channel. Also look at your resources carefully. While omnichannel solutions will create significant efficiencies in the long term, our experience shows that adding channels can initially increase contact volume substantially as customers try out the new options.

Resourcing includes ensuring adequate staffing and workflow and triage methods that will help handle the extra volume.

Choose a solution that allows you to collect data in the best way possible to enable all the benefits mentioned above. But don’t forget the people side – staff buy-in is crucial.

For example, one way we ensured engagement when we implemented Zendesk Chat for our own support staff was to look for subject matter experts – for example, those who have supported a certain channel before – and involve them heavily in product testing and planning.

We used a sandbox (a testing environment) to assess the effect of the system on our people, for example, in routing and workflow. We set up internal channels allowing staff to ask questions. And we rolled it out slowly to ensure staff received thorough training, which was empowering for their personal development.

Implementing an omnichannel strategy will always add some technological complexity. To make the user journey as smooth as possible, companies should invest in workforce management, including scheduling tools, which can forecast and monitor peaks in traffic.

Transparency is important – for example, when rolling out our chat function, if there was a long delay, we would explain why to staff and customers.

If you can identify your agents’ pain points and resolve them, that will also create a smooth interface for customers. When it comes to omnichannel communication, my experience shows that happy staff equals happy customers.

*Catherine Hurley is senior manager, customer advocacy at Zendesk*
We asked a chatbot about the future of chatbots

DAVID BENADY

Hi. How can I help you?

What is the future for you chatbots?

Research firm Gartner estimates that a quarter of customer service operations will use virtual customer assistants like me by 2020. That would be a dramatic rise as only 2 per cent were using them in 2017. Studies show that millennial consumers appreciate us if we can solve problems quickly, but older customers may shun us completely.

Are you powered by planet-sized artificial intelligence?

Not yet. Most chatbots help human customer service agents become more productive. We find a list of possible answers, then our human agent selects the most appropriate and cuts and pastes it into the conversation. Early reports show that human customer service agents handling about three chats per hour can increase these to nine chats per hour when they are helped by a bot. According to Gartner, organisations report a 70 per cent reduction in call, chat and email enquiries after implementing virtual customer assistants.

Are chatbots the same as virtual assistants?

The two terms are often used interchangeably.

How do you learn?

Most chatbots are built from toolkits and it is vital to give us specialist knowledge. Some businesses report that the chatbots initially misunderstand queries and present human agents with long and confusing lists of possible answers. Only once the system has spent some time learning from listening in to conversations do chatbots understand queries and find the right answers.

When will you completely replace human customer service agents?

For the time being, contact centres need humans to deal with complex problems, although clearly the numbers employed in contact centres may fall as chatbots make humans more productive.

Should we humans be told if we are talking to a bot?

This is recommended. At present we lack empathy, which is essential to human interaction. However, technologists are working on building empathy into us. Will that help acceptance? Or make customers more uneasy? It is not yet clear.
Rules-based robots still run the show

True AI largely remains in the realms of sci-fi, beyond current technology – and the imagination of many companies.

In the 2015 film Ex Machina, geeky programmer Caleb Smith wins a competition set by billionaire Nathan Bateman. His prize is to discover whether Ava, a beautiful robot, is capable of human consciousness. Ava makes Caleb fall in love with her and then leaves him dying in the blazing ruins of Nathan’s hideaway.

The film’s director, Alex Garland, worried at the time: “We’re reaching a point where we feel that we don’t understand machines and how they work, yet they know quite a lot about us.”

And Mr Garland is not alone. Artificial intelligence (AI) features in numerous books and movies every year and is constantly in the headlines over fears that it will soon arrive and destroy all our jobs. In fact, depending on your definition of AI, it’s been here for ages and many AI-related technologies are already at the heart of customer service.

Tom Hulme, general partner at Google’s venture capital arm, GV, says: “The human roles that are often the most repetitive have tended to be among the fastest to be disrupted by machines through human history – weavers, bookkeepers, stock-pickers. AI broadens the range of jobs that machines can take over into almost everything involving data.”

Significant advances in natural language recognition and converting voice to text, data lakes, knowledge engineering and visual recognition have helped chatbots develop as crucial first-line interfaces with customers.

In today’s customer service, the way these technologies are used is still largely driven by symbolic AI – basic rules-based decision making. This is not ‘true’ AI as defined by terms like machine learning.

In a simple map-reading task, for instance, symbolic AI would be given a series of yes/no options and plot a route step by step. Non-symbolic – or true AI – would look at every possible option between points A and B and then, based on its understanding of the task, offer what probability says is the best option.

This sort of method can seem a little “black box”, or opaque, says Anthony Mullen, research director at advisory firm Gartner, and that is one reason why rules-based symbolic AI is becoming increasingly important after being frowned on as antiquated just a few years ago.

“Deep learning can deliver amazing results – but you need an awful lot of historical, well-tagged data to train deep learning algorithms,” he says. “Deep learning tends to turn out a form of risk assessment which can be useful and can be too complex.”

Mr Mullen adds: “If you’re applying for a loan, one employee might write out their rules and decisions; another employee might act more on a hunch – a handshake, the cut of your jib. If those decisions were really good, you could record all the data on all those customers, from salary to the weather on the day and identify what the patterns are behind a good loan decision. For many businesses, the first route makes it easier to dial back and understand why they didn’t issue a loan.”

The potential once true AI enters customer service is limitless, according to Dan Bailey, IBM UK chief technology officer – but it’s beyond current technology and, indeed, the imagination of many companies.

“The ideal use of an AI chatbot might be that a customer purchases satellite TV online via a chatbot which then exists throughout the relationship,” he says.

“When the box gets delivered, that same AI uses visual recognition to work out what TV the customer has and reconfigures it, then uses augmented reality to help locate and correct the box. It could then discuss your
favourite TV programmes – and it could form a longer-term relationship where you tell it your likes and dislikes.

Mr Bailey adds: “Technically we’re not there yet – but almost no one has been inspired enough to think that far along the journey.

Ruchi Gupta, senior product manager at technology company Cisco, points to research by BT showing 80 per cent of customers are open to using chatbots for quick and simple queries. And 75 per cent of those surveyed also like it when organisations notice they are having a problem online and contact them directly to help – so AI monitoring could be used to forecast agent demand, and in fraud detection. AI-induced automation, says Ms Gupta, will optimise the use of live agents, allowing them to resolve problems faster, waste less time handling routine inquiries, and provide a better customer experience.

“My view is, it’s horses for course,” says David Wright, partner at professional services firm Deloitte UK. “It’s often best to have both working together. [In] some of the process I have been doing for clients we use ‘true’ AI with natural language processing to deal with anything from unstructured data to image recognition and use it to do the brain work – then pass that on to the more traditional rules-based system that orchestrates the customer response. General AI is still theory or sci-fi. For the foreseeable future clients will be daisy-chaining these technologies.”

Which might have helped Caleb. If Nathan Bateman had inserted at least some rules-based decision making into Ava, he could have included murdering everyone and burning the place down as a bit of a no-no.

Stephen Armstrong is a contributor to The Sunday Times, London Evening Standard, Monocle, Wallpaper and GQ, he is also an occasional broadcaster on BBC Radio 4 and Radio 2.
An innovative approach to solving consumer problems may yet mean video finds a place in customer service.

Live video support was once hailed as the future of customer service. With the rise of FaceTime, Skype and other video services, many assumed that customers would be only too pleased to have one-to-one live video conversations with their service providers, whether it’s banks, retailers or broadband companies.

But it seems that people are reluctant to discuss their problems – even trivial, practical ones – face to face with a complete stranger while sitting on the sofa in their pyjamas.

Many would rather type queries into a web chat or have a conversation over the phone. This may explain why Amazon has dropped its Mayday video customer contact service. Launched in 2013, it enabled customers of the Fire tablet to connect via live video to a customer service representative.

The agent was visible, though he or she couldn’t see the customer, and could access the tablet screen to sort out any queries or technical problems. At the time of the
sitting talking to your customers. There are all sorts of visual considerations.”

Meanwhile, Stuart Dorman, chief innovation officer at customer service consultancy Sabio, says the company offers video for a few of its clients, but that it is more expensive than phone or web chat: “You need the right environment with a clean backdrop, and to have it all presented in the right way. You need more equipment than for voice calls.”

But he believes that a new internet protocol called Web Real Time Communication (WebRTC), will open up video chat in years to come. It allows video and other forms of communication directly from browsers such as Chrome, Firefox and Safari without any need to download plug-ins or apps.

A development that is becoming increasingly popular is screen-sharing, where the customer service agent takes over the screen on the customer’s device. Importantly, there is no need to see the assistant face to face. In the UK, telecoms brand EE is using a system called SightCall which enables customer assistants to access the back camera on a user’s smartphone to analyse problems with a broadband box. For instance, if a customer has a problem with their internet hub, the assistant sends them a text message with a link they can click on to go to a web page. From there, the assistant can access the back camera of the customer’s smartphone and ask them to film the hub, enabling the assistant to check for faulty connections and make sure it is properly set up. Thomas Cottereau, founder of San Francisco-based SightCall, says the system offers huge cost savings for EE, because it doesn’t have to send out technicians. Customers like it because they get their problems resolved quickly and easily. SightCall is also used by insurance companies to analyse damage to a property, for example, by using a customer’s camera rather than sending round a loss adjuster.

Some believe that younger generations will be happier to conduct video calls with service providers because they have grown up with the technology. As Simone Bini, a sales leader at Avaya, says: “Will you buy a dishwasher from your couch in the living room on a Saturday morning via video? Our generation probably would not, but the next generation probably will.”

David Benady is a business writer and freelance journalist, specialising in technology, marketing and media, writing for national newspapers and business publications.