CONTACTBABEL

The Inner Circle Guide to Video & Next-Generation Customer Contact

Sponsored by

Talkative™

The Inner Circle Guide to Video & Next-Generation Customer Contact (US edition)

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Talkative provides a complete suite of digital customer contact channels, from video chat to virtual agents.

Website/app visitors can instantly start a video chat within a web page, without any plugins, pop ups or downloads. This allows for seamless face-to-face customer contact within the context of the customer's online journey. They are routed to the right agent, who can video chat with the customer and see the full context of the customer's website session within a single dashboard. Video chat is managed within a contact center workflow where customers, agents, and interactions can be managed and reported on.

Unlike other video chat solutions, Talkative:

- works on all devices and doesn't necessarily require scheduling
- allows a direct video call without needing to start a web chat first
- allows video recording, with PCI-compliance and regional storage settings
- offers "just" video chat, or use alongside web chat and voice options
- has user-friendly controls and a highly customizable video chat widget

Video chat can also be used alongside Talkative's other customer contact channels:

- Web chat - text-based messaging between customers and agents, including real-time translation.
- Virtual agents - AI-powered chatbot that answers questions and can transfer to live agents.
- Cobrowse and screenshare - allows agents to securely see/interact with a customer's website session.
- Social media messaging integration - enables organizations to handle inbound contacts from WhatsApp, Facebook, Twitter, and SMS.

All features can be used independently or together, catering for a wide variety of use cases. Talkative supports customers in retail, financial services, government, travel, and other industries in all continents.

If you'd like to learn more about deploying a proof-of-concept video chat implementation, please get in touch!

Contact:

Speak to us over video chat or web chat, schedule a demo, or start a free trial: http://gettalkative.com

WhatsApp: +44 1633 603333

e: info@gettalkative.com

t (US): +1 929 531 6199

t (UK): +44 1633 302069

"The Inner Circle Guide to Video & Next-Generation Customer Contact" is one of the Inner Circle series of ContactBabel reports.

Other subjects include:

- AI, Chatbots & Machine Learning
- Cloud-based Contact Centers
- Customer Engagement & Personalization
- Customer Interaction Analytics
- First-Contact Resolution
- Fraud Reduction and PCI DSS Compliance
- Omnichannel
- Outbound & Call Blending
- Remote Working
- Self-Service
- Voice of the Customer
- Workforce Optimization.

They can be downloaded free of charge from here.

The Inner Circle Guides are a series of analyst reports investigating key customer contact solutions and business issues. The Guides aim to give a detailed and definitive view of the reality of the implementing and using technologies, how best to address these issues, and a view on what the future holds.

As well as explaining these solutions to the readers, we have also asked the potential users of these solutions whether they have any questions or comments, and we have selected several of the most popular to ask to the report's sponsors. The answers to these are distributed throughout the report and give interesting insight into real-life issues.

Statistics within this report refer to the US industry, unless stated otherwise. There is a version of this report available for download from www.contactbabel.com with equivalent UK statistics.

"Small" contact centers are defined in the report as having 50 or fewer agent positions; "Medium" 51-200 agent positions; and "Large" 200+ agent positions.

In writing a report that refers to 'next-generation' customer contact, the implication is that the solutions being discussed are a long way down the line, and that while it's interesting to keep a watching brief on them, there's no real need to consider them now.

As far as the content of this report is concerned, this is untrue. In an industry which is now moving far more rapidly than it had done in perhaps decades, much of these next-generation customer contact techniques and solutions are here now, although generally not yet mainstream.

The first half of the report looks at new and upcoming channels, primarily the rapid rise of video as a channel for customer contact, driven in large part by the familiarity with video calls that many people found themselves developing over the lockdowns that most countries experienced. Businesses now have the opportunity to offer video calling to customers, for whom this is no longer an outlandish idea. Our survey of 1,000 customers shows that many are willing to at least try this channel: like any new form of communication, if it offers a better experience than customers are used to, it will succeed; otherwise, it will not.

Apart from video calling, the report considers the rise of messaging in customer contact. With billions of WhatsApp, Messenger, Twitter and WeChat messages being sent each day, this is something that most companies should at least consider implementing, as its asynchronicity can actually be an advantage for both businesses and customers.

Other channels with relatively low take-up but having strong potential – web collaboration and visual IVR – are also explored in the first part of the report.

In the 'next-generation' section of the report, we look at various techniques and technologies which are either here today (although currently used much less than established customer contact solutions), or which are just around the corner, including:

- Crowdsourced customer service
- Developing remote working
- Personalization and contextualization
- Sentiment analysis
- AI-augmented agents
- Customer identity authentication
- Virtual and augmented reality
- Intelligent virtual assistants.

Before looking at how new channels are emerging, let's consider the current situation.

Figure 1: Contact center inbound interactions by channel, 2007-2024
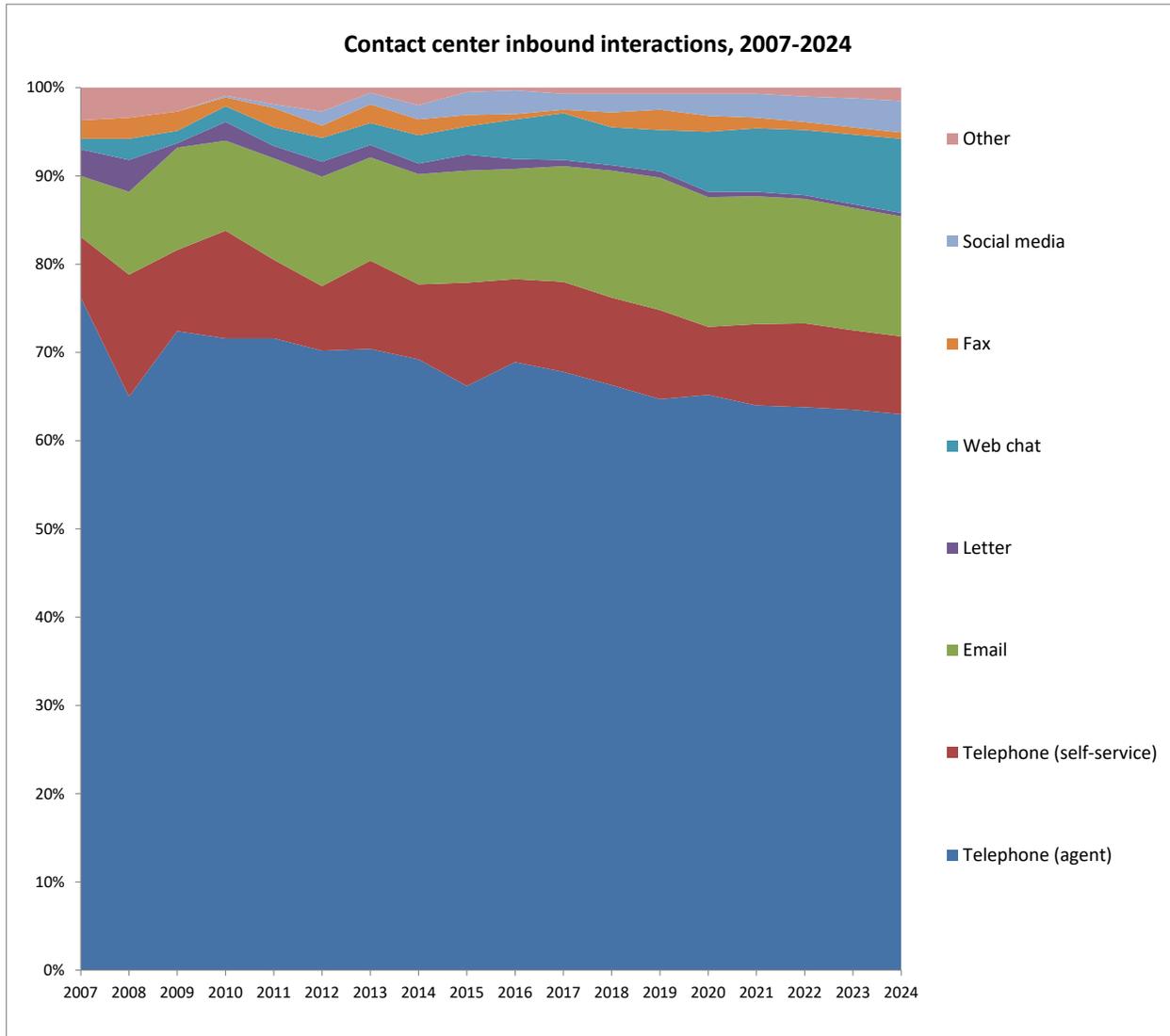
Live agent telephony will continue its gentle decline in terms of the proportion of interactions handled. Although older demographics become more comfortable with using it, email will decline slightly to around 13-14% of inbound interactions by the end of 2024, as there are more effective and quick digital channels to use in its place.

Web chat enjoyed a major increase in 2020 and will continue to become mainstream, led by the retail sector, where the opportunity to ask a quick question in real time can dramatically improve the conversion rate of online baskets, something that the US leads in. Telephony self-service will maintain its volumes, with implementations of visual IVR, which allow businesses to put a visual front-end on existing systems, offering the option to improve the customer experience.

The use of social media as a customer service channel will remain niche except for specific younger demographics communicating with companies which actively promote this digital channel to their consumer base.

The use of messaging will increase, and we would expect to find video calls being made to a significant number of businesses by 2024.

Year / Channel	Telephone (agent)	Telephone (self-service)	Email	Letter	Web chat	Fax	Social media	Other
2007	76.2%	6.9%	6.9%	3.0%	1.2%	2.1%	0.0%	3.7%
2008	65.0%	13.8%	9.4%	3.6%	2.4%	2.4%	0.0%	3.4%
2009	72.4%	9.2%	11.6%	0.5%	1.4%	2.2%	0.0%	2.7%
2010	71.6%	12.2%	10.2%	2.1%	1.8%	1.0%	0.2%	0.9%
2011	71.6%	8.9%	11.5%	1.4%	2.1%	2.2%	0.4%	1.9%
2012	70.2%	7.3%	12.4%	1.7%	2.7%	1.4%	1.6%	2.7%
2013	70.4%	10.0%	11.7%	1.4%	2.5%	2.1%	1.3%	0.6%
2014	69.2%	8.5%	12.5%	1.2%	3.2%	1.8%	1.6%	2.0%
2015	66.2%	11.7%	12.7%	1.8%	3.2%	1.3%	2.6%	0.5%
2016	68.9%	9.4%	12.5%	1.1%	4.5%	0.6%	2.7%	0.3%
2017	67.8%	10.2%	13.1%	0.7%	5.3%	0.4%	1.8%	0.7%
2018	66.3%	9.9%	14.4%	0.6%	4.3%	1.7%	2.1%	0.7%
2019	64.7%	10.1%	15.0%	0.7%	4.7%	2.3%	1.8%	0.7%
2020	65.2%	7.7%	14.7%	0.6%	6.8%	1.8%	2.5%	0.7%
2024	63.0%	8.8%	13.6%	0.4%	8.4%	0.7%	3.6%	1.5%

The number of inbound telephony interactions that agents handle is predicted to decrease by 0.2% year-on-year in the next four years: while the easier, more transactional contacts will be increasingly handled through AI-enabled web self-service (with the average voice interaction becoming a more complex process, requiring longer to handle successfully), the increasing customer expectations, growth in multifunctional smartphones and other devices and the automated support of digital channels will serve the pent-up customer demand for immediate support.

There will continue to be strong growth in social media and web chat interactions, supporting the online browsing sessions which require assistance, with email becoming a trusted solution for non-urgent and more complex requests that might historically have required a letter to be sent (e.g. in the case of a detailed complaint).

Figure 2: Relative changes in inbound channels, 2020-2024

Inbound channel	Compound annual growth rate (CAGR), 2020-2024 (number of interactions)
Social media	10.2%
Web chat	6.1%
Telephone (agent)	-0.2%
Email	-1.3%
Telephone (self-service)	4.0%
Total inbound interactions	0.6%
Total inbound agent positions	-0.3%
NB: total inbound interactions does not include web self-service	

The next chart looks at the customer drivers of channel choice.

A survey of 1,000 US consumers carried out for ContactBabel looked to understand which would be the channels of preference in cases of high emotion, urgency and complexity, through presenting survey respondents with three scenarios:

High emotion: for example, a complaint or having to return an incorrect item they were looking forward to receiving.

High urgency: for example, checking the arrival time of a plane or train that they were meeting someone from.

High complexity: for example, difficulties completing a tax return or mortgage application form.

Figure 3: Preferred method of contacting businesses, by type of interaction

Preferred method of contacting businesses, by type of interaction

	High emotion	High urgency	High complexity
Don't know	4%	5%	4%
No preference	4%	5%	5%
Social media	5%	6%	5%
Web chat	7%	6%	6%
Email	14%	9%	11%
Website self-service / mobile app	8%	27%	10%
Call customer service	43%	36%	40%
Visit the store / office / branch, etc.	14%	7%	19%
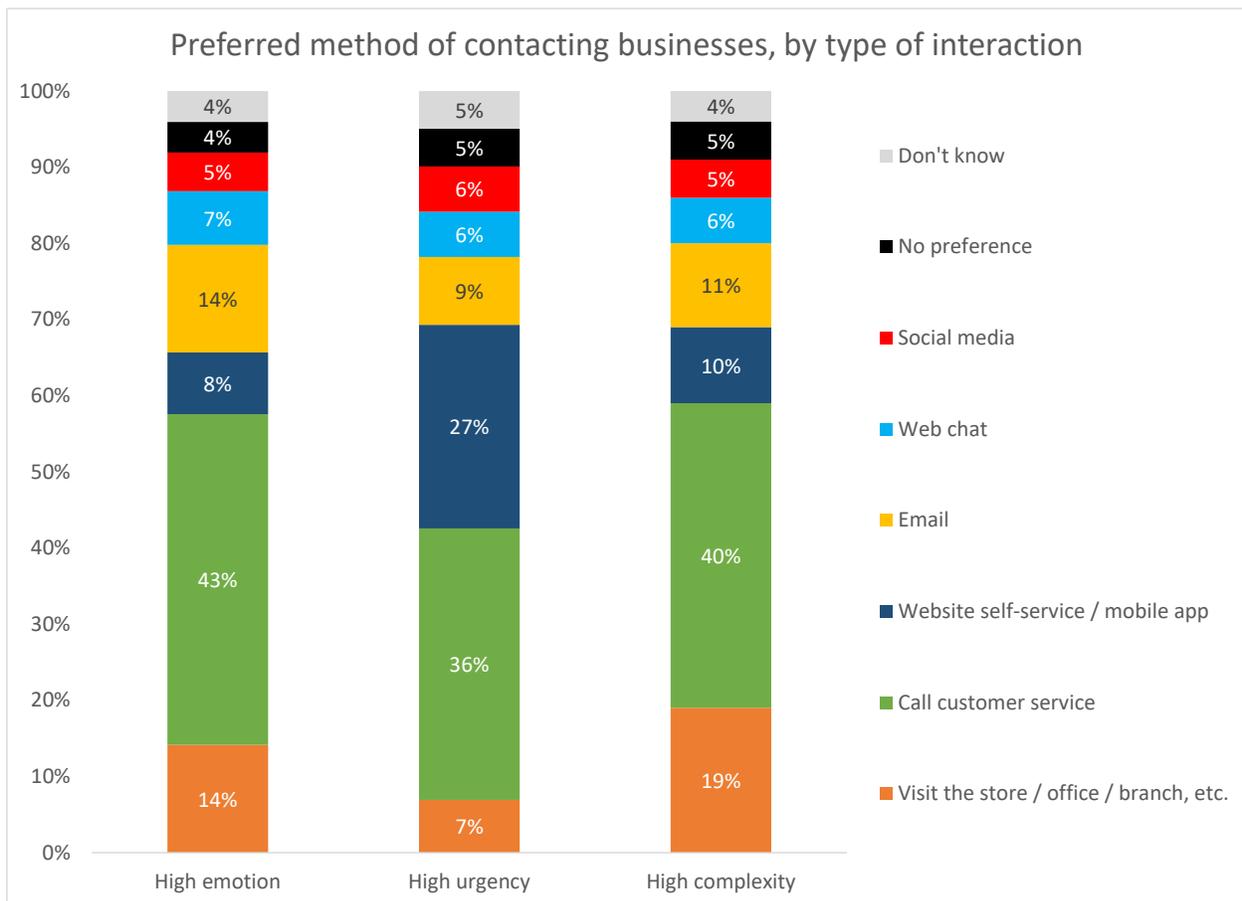
While there are trends to be seen – urgency means self-service is popular; email is often used for complaints; telephony is good for emotional issues – there is still a considerable spread of different answers to each scenario. This suggests that making multiple channels available to customers is a popular move, and that no channel has an unassailable preference over another.

It is interesting to note that telephony achieves top preference for between 36% and 43% of respondents depending on the scenario, yet around two-thirds of inbound communication still comes through this channel. Why are so many customers still using it, if their preference may actually be for a different channel? It's our view that people call people not necessarily because they want to hear a friendly voice, or that they're Luddites who won't countenance automation, but because they've found through experience that this is the most effective way of making sure their issue is resolved. Of course, they may well also have tried other channels before making that phone call.

In the longer-term, it seems fair to say that AI-enabled automation will handle much of the simple work, but customers will still seek out a live channel for complex or emotional interactions: probably voice, but perhaps digital or video too as customer confidence in these channels builds up. Yet even here, AI will be playing a part, identifying the customer's intent, gauging their sentiment, and understanding through past experience what the appropriate actions for the agent will be. Over a long period of time, AI will become thoroughly enmeshed in every element of customer interactions.

The next part of the report looks at some new – and not so new – channels which do not yet have particularly high volumes, but which look suited to handling particular types of customer and issue better than the channels in widespread use today.

Allowing customers to start a video or voice call from the web browser or app (which may be via a desktop computer or more often a smartphone or tablet, perhaps as an escalation from an existing web chat session), means the organization's website can then offer video or voice contact center functionality in a seamless manner. Customers are able to request live communication with the business without the need to download specific software or seek out the phone number and break off from what they are doing on the website.

Video agents are a step towards more personalized, high-quality customer contact. The customer will be able to see to whom they are talking through a computer or mobile device, assuming the broadband requirements are met. The imminent widespread rollout of 5G will make the smartphone an even more powerful device, and we can expect that the high bandwidth available will encourage businesses to offer both real-time and recorded video as part of their customer communication mix.

Two-way video communication is likely to be of particular relevance to mobile users, as their smartphone device already comes enabled with a camera and microphone, unlike many desktop computers which may not have this functionality as standard or whose users have it disabled.

Companies implementing video should have a strategy about what exactly they want it to do. On the face of it this seems self-evident, but video sits squarely in the middle of two other channels: phone calls and face-to-face interactions. Will video be seen by customers as a value-add phone call or as a way of keeping customers at arms' length? While we believe the former to be more likely, our research in this area showed that some customers saw video as just being a way for businesses to cut costs so they didn't have to offer "proper" (i.e. face-to-face) service. Customers whose main recent experience of video has been a virtual medical appointment rather than one in a surgery may see video as being a downgrade, but we believe that those who are open to using video will see it as an upgrade on a telephone call.

WebRTC

WebRTC (Web Real Time Communications) "is a free, open-source project providing web browsers and mobile applications with real-time communication (RTC) via simple application programming interfaces (APIs). It allows audio and video communication to work inside web pages by allowing direct peer-to-peer communication, eliminating the need to install plugins or download native apps"[1]. This means that customers don't have to download a mobile app for every company that they do business with or have to install plug-ins.

The announcement[2] that Apple would support WebRTC within its WebKit engine that runs the Safari browser was seen as a major step forward for next-generation customer support, enabling voice, video and collaborative communications directly from a website without the need for additional software. While mainstream use of click-to-video has been a very long time coming, WebRTC offers the opportunity to businesses to engage customers face-to-face where appropriate, offering the browsing customer a route straight into the contact center without any breaking of channel or extra effort.

END-USER QUESTION #1:

AS VIDEO CALLS PROBABLY WON'T BE ANY SHORTER OR CHEAPER THAN PHONE CALLS, HOW DO I SHOW ROI?

We've seen ROI justified through increased sales and conversions from company websites (Google Analytics is useful here). Travel and rent costs can be reduced by offering traditional in-person services online. Customer loyalty and brand image can also be improved and measured through traditional CSAT metrics. That said, the effects of video chat are going to be unique for each contact center. Typically, organizations start with limited "proof of concept" rollouts to get some real world data and build a business case.

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[1] https://en.wikipedia.org/wiki/WebRTC
[2] https://webrtc.ventures/2017/06/webrtc-support-in-safari-11/

USE CASES FOR VIDEO

While video is probably not needed for many of the everyday interactions between businesses and customers, there are times when its capabilities can add value to the customer experience and the outcome of the interaction.

It's important to understand that offering live video to customers is not appropriate for every business. As the result of our customer survey shows later in this report, different demographics have varying views on video. Not every customer segment will agree that there is a benefit to seeing agents, and many interactions would be better off suited to another channel, such as web chat or self-service. However, for interactions where trust and empathy are important, and where the issue may be complex, video can provide a level of service that telephony cannot match.

Live video use cases include:

Sales: For an retailer selling high-value items on a website, the option to have a video call looks to be a very good idea. With cart abandonment rates reportedly averaging around 70%[3], having a relatively high cost channel such as click-to-video available at the point of sale could in theory prove highly profitable.

Some retailers choose to offer video to potential purchasers rather than for after-sales service (for which they may offer web chat), which allows the demonstration of products as well as the chance to cross-sell, upsell and offer insurance. This also allows businesses to consider a reduction in the number of physical stores that they have, as the website / contact center can then act as a virtual store. The Alibaba Group are taking this a step further by announcing their Buy+ virtual reality store which allows consumers to browse in a virtual environment. There is more information on virtual and augmented reality in a later section of this report.

Healthcare: The coronavirus pandemic has hugely accelerated a gradual move towards offering remote medical services. In some part, these have been restricted to telephone-based consultations which by their nature do not allow for visual examination and rely upon the patient's own description of symptoms. Video consultations provide a significant upgrade on this, providing more accurate information for triage and offering a way forward for primary healthcare providers as well as advice lines.

The few studies of the effectiveness of video health consultations in outpatient environment suggest high patient and clinician satisfaction, and similar levels of disease progression in chronic cases[4]. Primary care findings also showed little difference between face-to-face, telephone and video outcomes, although evidence was weak, technical issues were often experienced and doctors' attitudes were mixed.

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[3] https://baymard.com/lists/cart-abandonment-rate
[4] https://www.bmj.com/content/371/bmj.m3945

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While video consultations are a significant step up on telephony-only appointments, they currently appear unlikely to replace face-to-face consultations for acute conditions, for those which require physical examinations, or for certain types of patient (for example, those unable to use technology effectively, or those which do not possess it).

Financial services: Various businesses – usually banks – are already using video kiosks to offer virtual branch banking services in areas where physical branches have closed. Skilled mortgage advisors, legal advisors and financial consultants who may otherwise have made a home visit can be put in front of potential customers immediately, saving their time. Many customers may welcome this, rather than feeling that they have to welcome a stranger into their home. Offering remote video consultations can also make appointments out-of-hours more palatable to all concerned.

Insurance: Many insurance companies are already asking customers who are making claims to upload photographic evidence of damage, and video can take this one step further by providing a clearer and more complete picture of the reason for the claim, increasing accuracy and reducing fraudulent claims. This reduces the need for the insurer to send out an assessor, which is beneficial for the customer as well as the business. Agents can also be trained to identify tell-tale visual signs of dishonesty.

Technical support: One of the most high-profile examples of video technical support was Amazon's Mayday service, offered on the Fire tablets from 2013. Despite its popularity with customers, it was quietly dropped in 2018. It may have been that it was a victim of its own success, becoming the most popular way to access technical support which would have impacted costs considerably (particularly as Amazon's Alexa virtual assistant has become ubiquitous).

Businesses looking to consider video agents may wish to consider what the likely demand will be, and possibly offer it only in certain circumstances and to specific customers. If the choice is between a phone call and a video call, then the interaction length (and therefore cost) is likely to be similar. However, if self-service could carry out a high proportion of initial requests, then video may best be left as a 2nd- or 3rd-line support option.

Product support demonstrations: if the agent has the product to hand, it is far easier to show the customer how to use it, rather than try to explain it (which may often involve jargon which is frustrating for the customer).

Complaints: While there are not many businesses using video agents to handle complaints, it can be theorized that demonstrating empathy is easier in a video call than in a phone call, and that the customer is likely to get less frustrated and angry if they can see who they're talking to, rather than just another "faceless employee". Video is seen by customers as a premium channel, and this may also show that the company is taking their issue seriously. This may also apply to renewals or where the customer has said that they wish to cancel a subscription.

The power of video: Why you need video chat as a contact channel

Since March 2020, video has become a hugely popular contact channel for both business teams and consumers. Contact centres using video chat before the pandemic, such as Bravissimo (a retailer using Talkative's video chat solution), have seen a 400% year-on-year increase in video chat usage. This increase reflects the growing consumer appetite for this channel. For most contact centres, video chat is a new concept. Here are some of the most common questions we get asked about video chat:

Why use video chat as a contact channel?

Video chat is the most "human" contact channel. With real-time, face-to-face interactions, video chat personalises the digital experience, making it the perfect way to engage more customers. This is especially true during complex and higher value interactions. Retailers such as lululemon deploy video chat to boost sales and bring the in-store experience online. As well as virtual shopping, other use cases include financial advice, remote product support, travel booking, and accessibility.

Scheduled or on demand video chat?

Scheduled meetings can work well in scenarios where an expert resource needs to be booked out in advance. However, many consumers prefer live or "on demand" customer interactions. This is where the inbound customer contact is more analogous to a live chat or a phone call. Live video chat is better suited for helping customers in the moment when they are making purchase decisions.

Should video chat replace or complement web chat?

Web chat and video chat are fundamentally different, but they can work in tandem or as standalone channels. However, using video in conjunction with live chat allows you to streamline the contact options on your website/app. You can also "escalate" from web chat to video chat, after the customer has been qualified or passed through a chatbot process.

Do customers like it?

Yes! Talkative's platform data shows an incredible 94% of customers rate video chat as a positive experience. Consumers are often pleasantly surprised to speak face-to-face with a customer service agent and get convenient, personal advice. Video chat is perfect for giving customers instant answers to their questions - video sessions tend to last around 6 minutes, which is actually shorter than web chat sessions (around 10 minutes).

Can we just offer web voice?

You can - all you need to do is change a single setting. For consumer interactions where just voice is required, video chat also enables voice calling to be made within websites/apps. To do this, simply disable video. Having said that, video holds many advantages over voice calling, including providing a more personal and engaging customer experience. It's why video chat is quickly becoming more popular with customers.

How should a contact centre adopt video chat?

Video should be treated similarly to inbound voice - reducing wait times is key to a successful video chat rollout. Be sure to intelligently offer video when agents are free, while displaying queue comfort messaging for managing customer expectations. In terms of resourcing, you can typically expect 10% of your web chat volume to be video chats. You may want to consider using in-store associates in addition to (or instead of) traditional centralised agents to deal with video chat requests.

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END-USER QUESTION #2:

SHOULD VIDEO ONLY BE OFFERED FOR SPECIFIC TYPES OF CUSTOMER OR INTERACTION? IF SO, HOW?

Video can be used for a variety of customer interaction types. Primarily, video chat is used as a powerful sales tool, but it's also employed for customer service and support. It's widely used in retail, and has several use cases for discretionary transactions too. These include holidays, automotive, and luxury purchases. How you get the most out of video chat will depend on your digital customer journey. For instance, you may want to restrict video to certain web pages or to certain customers, e.g. only logged-in users. That way you can still offer other channels like web chat for other types of customers.
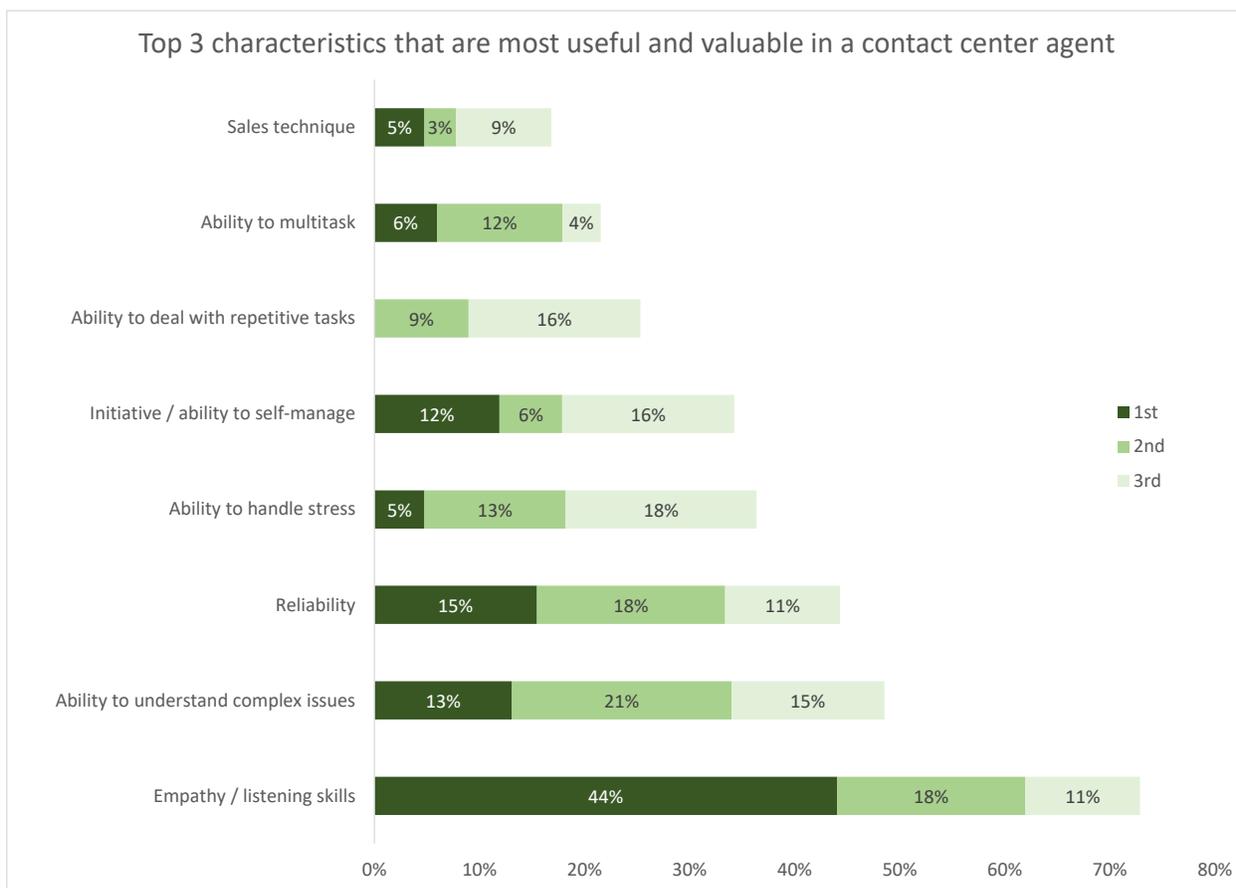
DRIVERS AND INHIBITORS FOR VIDEO

Live video can offer several potential advantages over telephony:

- a frequently cited study by Mehrabian and Ferris in 1967 showed how "the combined effect of simultaneous verbal, vocal and facial attitude communications is a weighted sum of their independent effects (when) a communicator is talking about their feelings or attitudes", to the ratio of 7% verbal, 38% vocal and 55% facial. This has often been misquoted and misunderstood to mean that 93% of all communication is non-verbal – clearly untrue in the case of an email, for example – but refers instead to how we feel about the speaker, how much we trust (or distrust) them and how easy it is to misunderstand someone when we can't see them. As such, we can see how adding visual communication to a customer conversation should make it easier for both customer and agent to read and react to emotions, recognize empathy and build rapport

- it is quicker to show rather than tell, particularly if technical support is required. This works both ways: two-way video allows the agent to perform remote diagnosis as well as demonstrating a product or the correct action to take. The video channel also makes it easier to implement co-browsing and screen sharing when necessary

- for companies whose brand is seen as being cutting-edge, giving customers the opportunity of early access to video agents will emphasize this

- customers who are on a website don't have to break channel or change devices in order to communicate with the business. Particularly in the case of a smartphone, a video call can just be a click away, which could save a sale that would otherwise be abandoned

- in case of stressful interactions, the visual channel can help to de-escalate negative emotions, showing the customer that there is a real person who is focused entirely upon understanding and solving their issue. In the case of 2-way video, the agent can gauge the mood and emotion of the customer more effectively, reducing misunderstandings and working more collaboratively

- the agent has more confidence that the customer is actually following the explanation if they can pick up on visual cues, and this is likely to improve first-contact resolution rates

- the video channel can help businesses move from physical brick-and-mortar premises to a remote working scenario, which is useful especially for banks, mortgage providers, travel agents and other businesses which are looking to scale back on their real estate costs

- further cost savings can be achieved by reducing the number of physical visits that an employee has to make, for example, to make a relatively minor service visit to the customer's home

- this reduction in physical visits can also work well for customers, who may no longer have to make a dedicated journey to a store or service center

Several of these drivers mention empathy and rapport as being particularly associated with the video channel, and the ability to display and recognize these characteristics is one of the big advantages that video has over other channels.

The chart below shows the value that contact center managers place upon agent empathy, but even if this is present in the agent's behavior, the non-visual nature of the telephony channel can make this more difficult for the customer to recognize.

Figure 4: Top 3 characteristics that are most useful and valuable in a contact center agent

Top 3 characteristics that are most useful and valuable in a contact center agent

Characteristic	1st	2nd	3rd
Sales technique	5%	3%	9%
Ability to multitask	6%	12%	4%
Ability to deal with repetitive tasks		9%	16%
Initiative / ability to self-manage	12%	6%	16%
Ability to handle stress	5%	13%	18%
Reliability	15%	18%	11%
Ability to understand complex issues	13%	21%	15%
Empathy / listening skills	44%	18%	11%

While some agents naturally have empathy, experience and directed training can maximize it in others. As self-service and AI-enabled solutions handle increasing amounts of straightforward customer interactions, those that are left to be handled by a live agent will be of a more complex nature and/or of a type where the customer needs reassurance that they are being listened to and understood. This can be seen by the very significant increases in average call duration in the past 15 years, with the typical inbound service call rising in length by over 2 minutes since 2003. A proportion of these calls will be suitable for the video channel.

Sentiment analysis (see later section in this report) can also assist with increasing empathy and rapport.

There are also a number of potential inhibitors to the video channel to consider:

- customers may prefer the impersonality of non-visual contact, and may be uncomfortable with the agent seeing them in a domestic environment, which would on the face of it, suggest one-way video may be more popular: some agents and customers won't feel comfortable using video, although in theory it shouldn't feel any different to what usually happens in a shop or service center. However, later findings in this report actually show that looking at a stranger on a video call is more uncomfortable for customers than being on camera themselves, and this is an issue for the industry to overcome

- verbal abuse, a major problem for some agents, may decrease in a virtual face-to-face setting. However, agents may feel their privacy is decreased if they are on camera (especially a one-way video link), and the incidence of disturbing crank calls may increase

- live video is a relatively expensive channel, as it is synchronous and unlike web chat, an agent can only handle a single customer at a time. As such, it should probably be seen as a replacement or alternative to a phone call or face-to-face meeting, rather than a digital interaction

- depending on the scale of the project and the existing IT systems, implementing video agents may require significant upgrades and additions to hardware, as well as the user licenses and improvements to the working environment

- it may be difficult to display a background which is attractive and professional, especially in the case of agents working at home

- existing voice agents will need to be trained in visual communication and body language.

Recorded video

Video does not only have to be used to show a company's agents in a live environment, but also can be used as part of a supported multimedia service experience, with the agent sending relevant recorded video clips either via chat or email, or simply having them available through self-service on the website. This can improve the customer experience as well as reducing avoidable contact.

Having live or recorded video of a product on a website can be much more effective for sales and service than simply having static images, in that it can provide a full 360 degree view and zoom in on anything of particular interest. This is a technique that many car sales businesses have adopted in lockdown which is sure to continue in the future as it reduces the customer effort considerably and provides the opportunity to expand their potential market far beyond the local area.

Research[5] also seems to suggest that recorded video works very well for fashion brands where the look of the item (rather than its actual utility) is the main driver for purchase. Recorded videos on the website have been shown to increase consumer confidence, lengthen the interaction with the website, and increase actual sales.

Analytics is used on many companies' websites to deliver a personalized experience to a prospect or customer who's browsing the site, through offering support based on the outcome of previous site visitors' behavior e.g. popping up a web chat session if they pause, hover over a site element, visit a page repeatedly, etc. It is also possible to add a pop-up that provides self-service rather than a contact option: for example, a visitor who is spending a long time trying to change an existing booking can be sent a video showing them how to do this

END-USER QUESTION #3:

WHAT DOES IMPLEMENTING VIDEO IN THE CONTACT CENTER ACTUALLY INVOLVE, TECHNICALLY AND FINANCIALLY?

Talkative

For video chat to be implemented, a business case and executive buy-in is normally a prerequisite. People, process, and product need to be considered. People (agents) need to be resourced appropriately, since video chat is typically an additive component of your customer contact channels. What's more, video chat is a relatively new contact method, so the processes need to be defined and aligned to desired business outcomes, such as tying video chat interactions to sales/ecommerce data. The right video chat product for your needs will be easy to implement and customizable to your website or mobile app. It'll also help you stay compliant, and let you manage and report on video chats in the same way you do today for phone calls.

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[5] https://styleshoots.com/blog/10-statistics-to-show-how-video-content-helps-fashion-brands-sell-more-online

CURRENT AND EXPECTED USAGE OF VIDEO

A recent ContactBabel survey of US companies found that 13% of respondents were using video in their contact centers today, and that a further 14% plan to do so within two years.

23% of survey respondents had made a definite decision not to do so.

Figure 5: Use of video agents in the contact center

Use of video agents in the contact center

- Yes, we use them now 13%
- We plan to use them within 2 years 14%
- No firm plans either way 32%
- We will not use video agents 23%
- Don't know / NA 18%
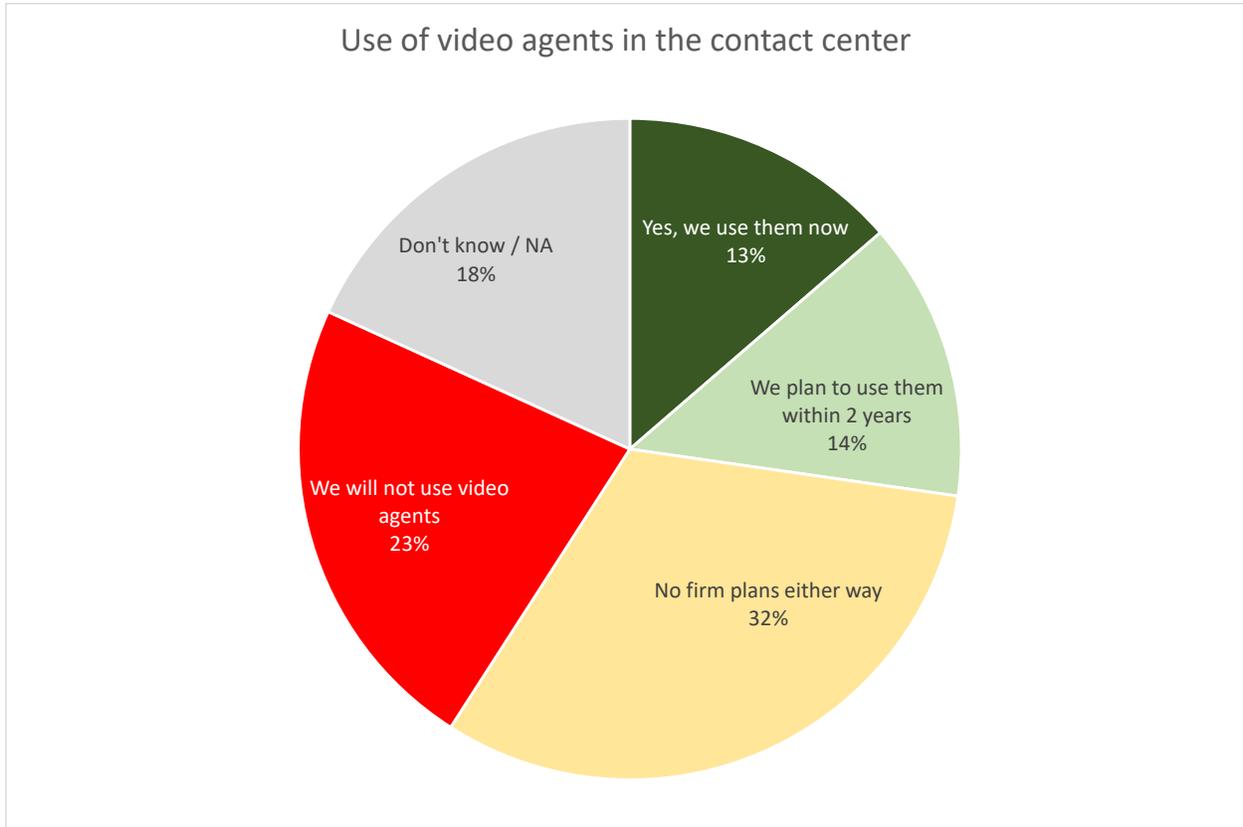
Looking at the possible advantages of video, 54% of business survey respondents believed that video agents could offer more personalization and empathy on the call, with only 5% disagreeing.

50% of businesses agreed that being able to demonstrate products and solutions was a driver for video, with 5% disagreeing.

Only 23% thought that video agents could reduce the premises costs (through working at home), with 32% disagreeing.

Figure 6: Drivers for the use of video agents in the contact center

Drivers for the use of video agents in the contact center

Category	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know / NA
Video could help us reduce our real estate costs	5%	18%	27%	23%	9%	18%
Video agents can offer more personalization and empathy on the call	23%	27%	23%	5%		23%
Video makes it easier to demonstrate products and solutions	27%	27%	27%		5%	14%
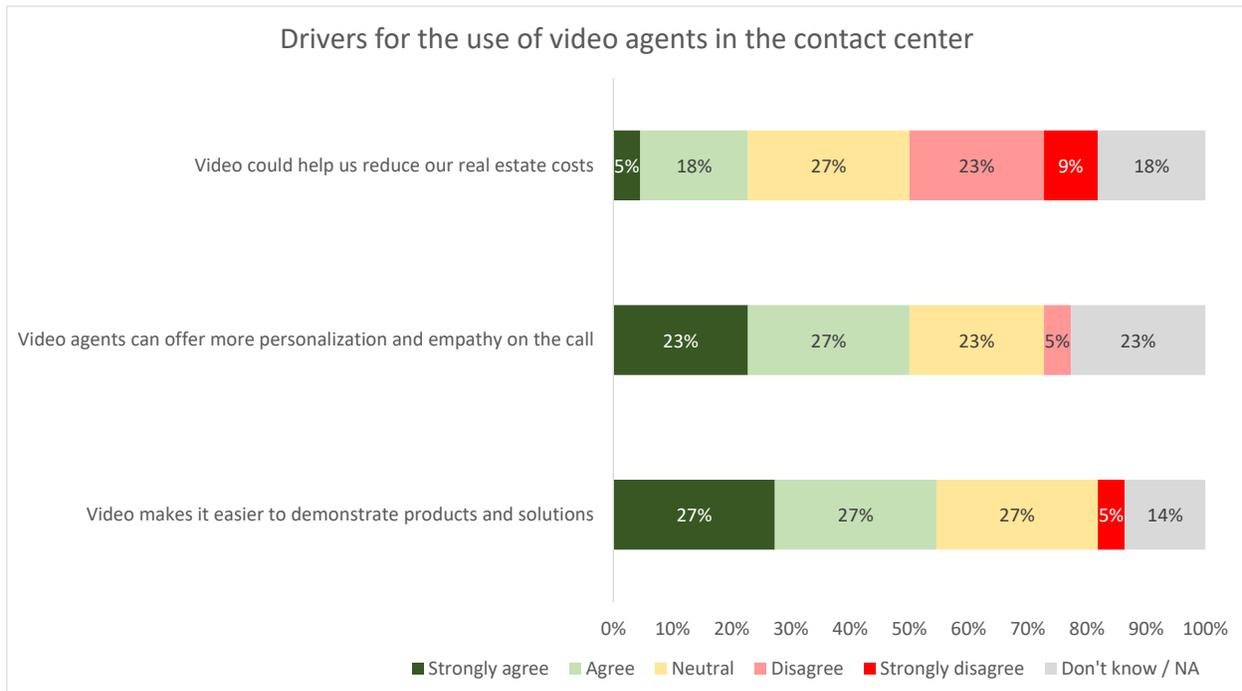
Looking at the inhibitors to video, 59% of business respondents stated that they did not think their agents would welcome being on camera. 57% believed the same about customers (although for one-way video, this would of course not be an issue).

Relatively few respondents believed that video technology was too expensive, or that the background and environment would be difficult to manage professionally.

Figure 7: Inhibitors to the use of video agents in the contact center

Inhibitors to the use of video agents in the contact center

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know / NA
Video technology is too expensive		14%	23%	32%		32%
The video background and environment would look unprofessional		18%	41%	23%	9%	9%
Our agents do not want to be on camera	14%	45%	9%	14%		18%
Customers do not want to be on camera	19%	38%	19%	10%		14%
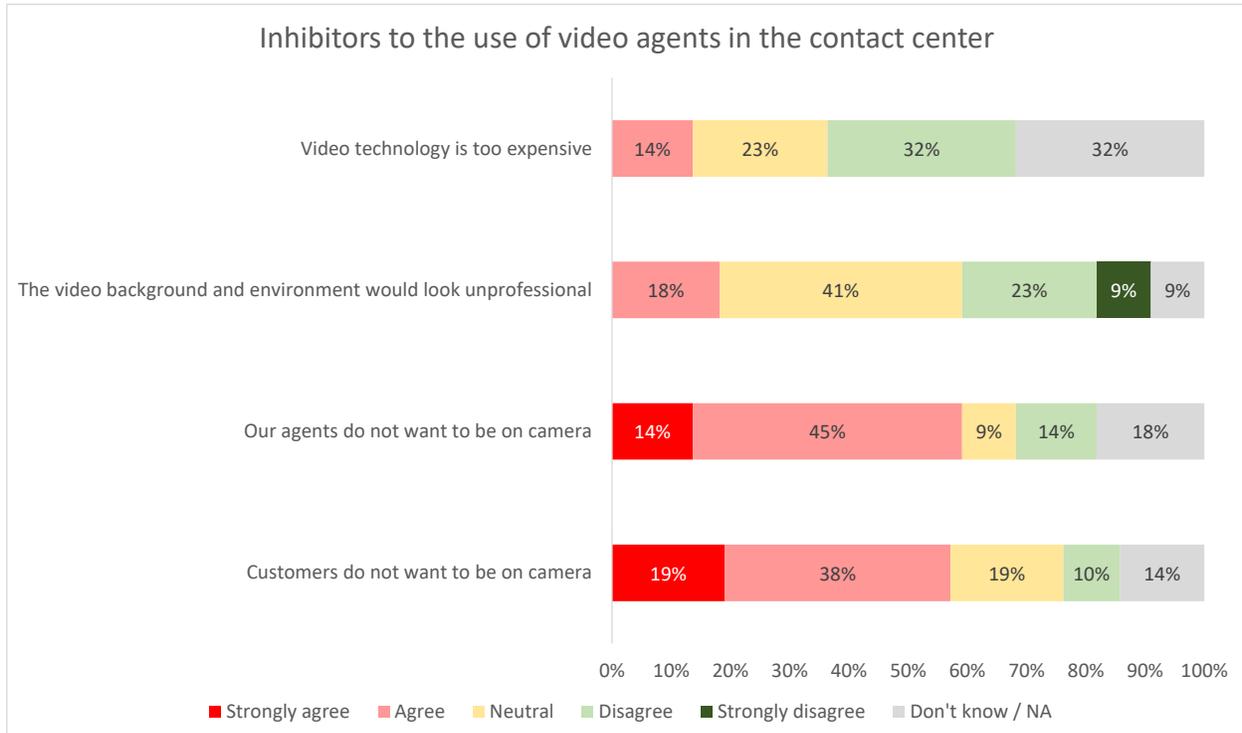
Further comments from survey participants were mainly along the lines of video not being appropriate for their type of business (for example, as agents could feel additionally pressured and stressed on difficult and emotive calls), and that some customers prefer face-to-face meetings for sensitive or complex issues.

It was also stated that video was more often currently used in sales or account management roles rather than customer service.

CUSTOMER ATTITUDES TO VIDEO IN THE CONTACT CENTER

A recent ContactBabel survey of 1,000 US consumers looked at whether the widespread use of video calls during lockdown had changed people's perceptions of this channel.

36% are now more comfortable with using video, with 9% less comfortable. 39% reported no change in their previous attitude.

The really interesting findings come when looking at the split by gender, age and socioeconomic group.

Figure 8: How, if at all, has lockdown changed how comfortable you are using video to talk to people? (by gender)
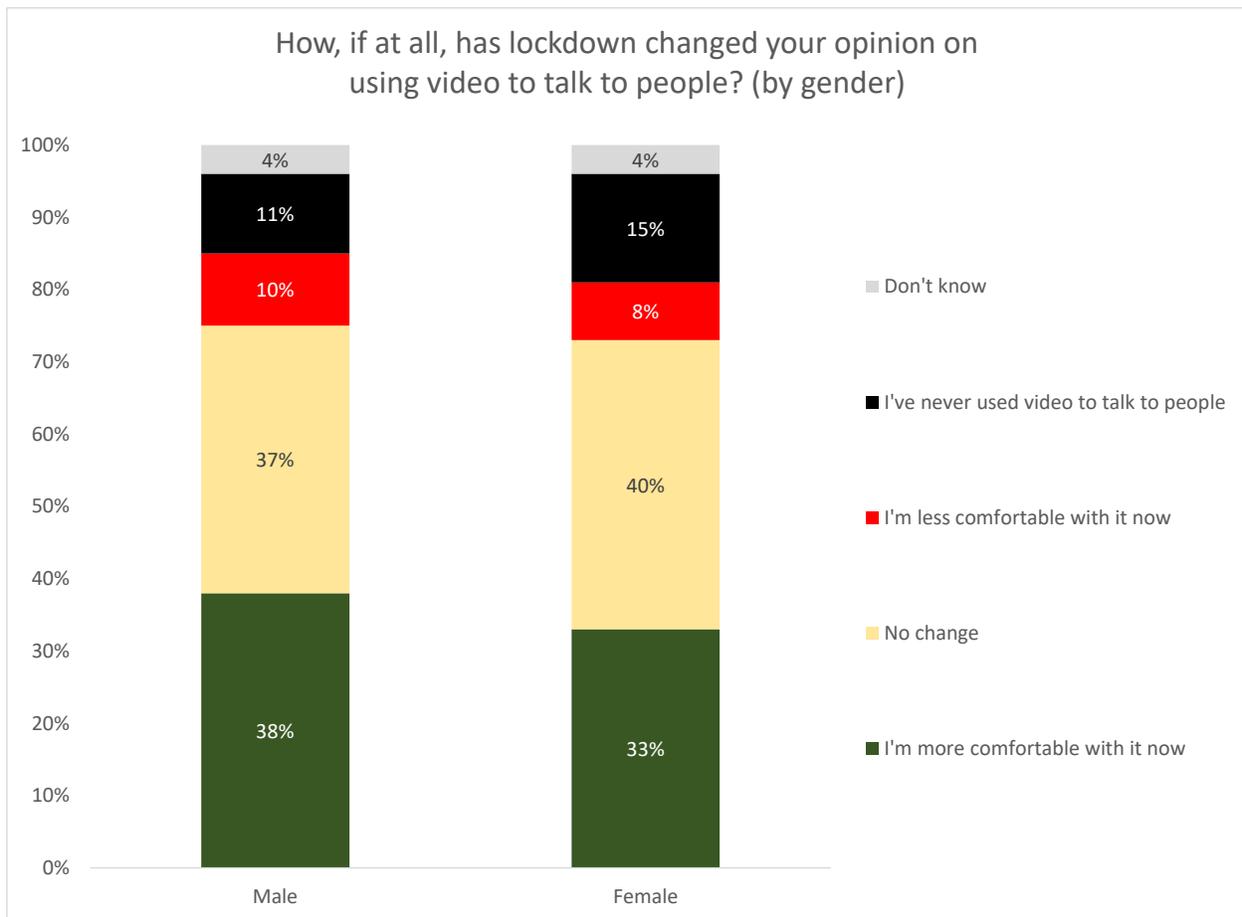
There is a marginal difference between how comfortable people now are using video depending on their gender, with men very slightly more positive than women about this.

Looking at the differences by age group, younger people are somewhat more likely than older ones to say that they are now more comfortable using video.

Few in any age group have become less comfortable, with 25% of the oldest age group never having used video to talk with anyone.

Figure 9: How, if at all, has lockdown changed how comfortable you are using video to talk to people? (by age)

How, if at all, has lockdown changed how comfortable you are using video to talk to people? (by age)
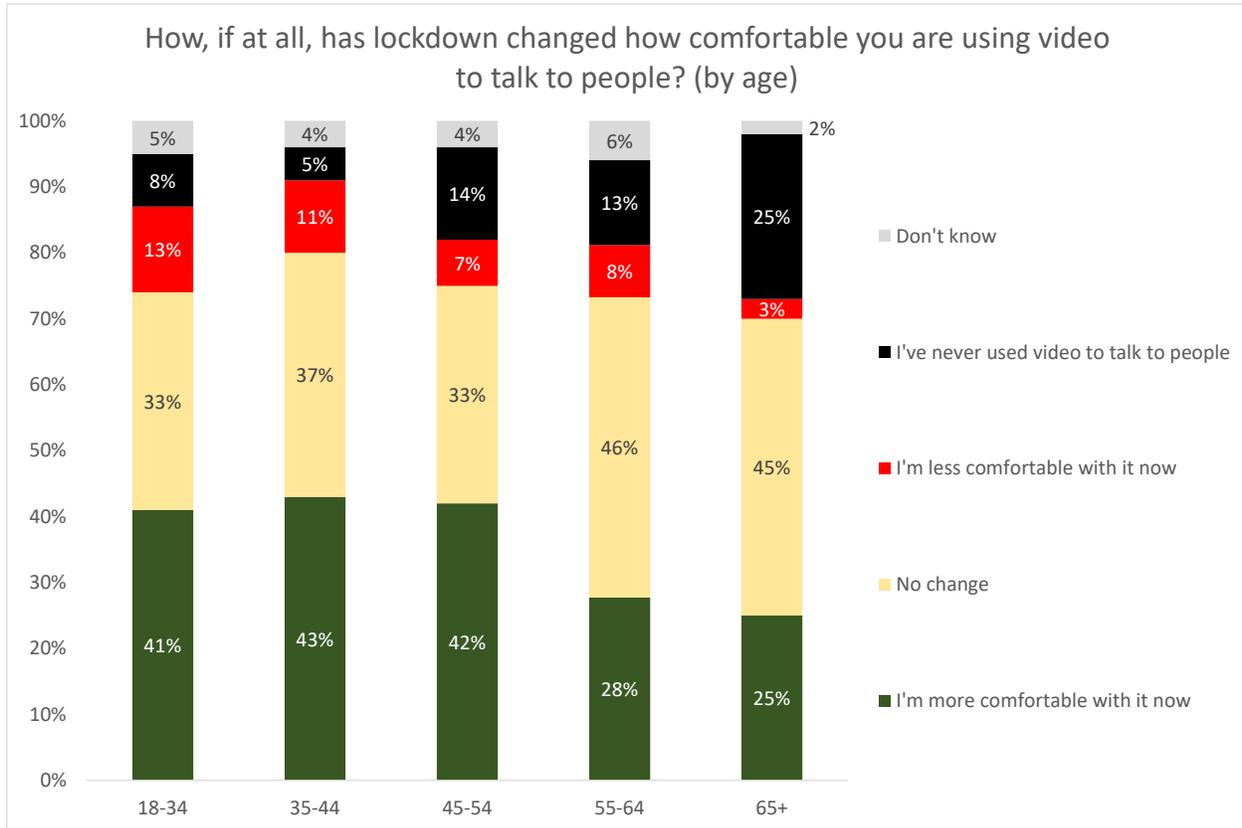
The higher-income group is most likely to be more comfortable with video calls now (perhaps as a result of the business-related video calls that many of this group have had to do regularly), with 51% saying that this has increased over lockdown.

The proportion of people who have used video communication in lower demographics tends to be relatively less than those in higher ones.

Figure 10: How, if at all, has lockdown changed how comfortable you are using video to talk to people? (by household income)

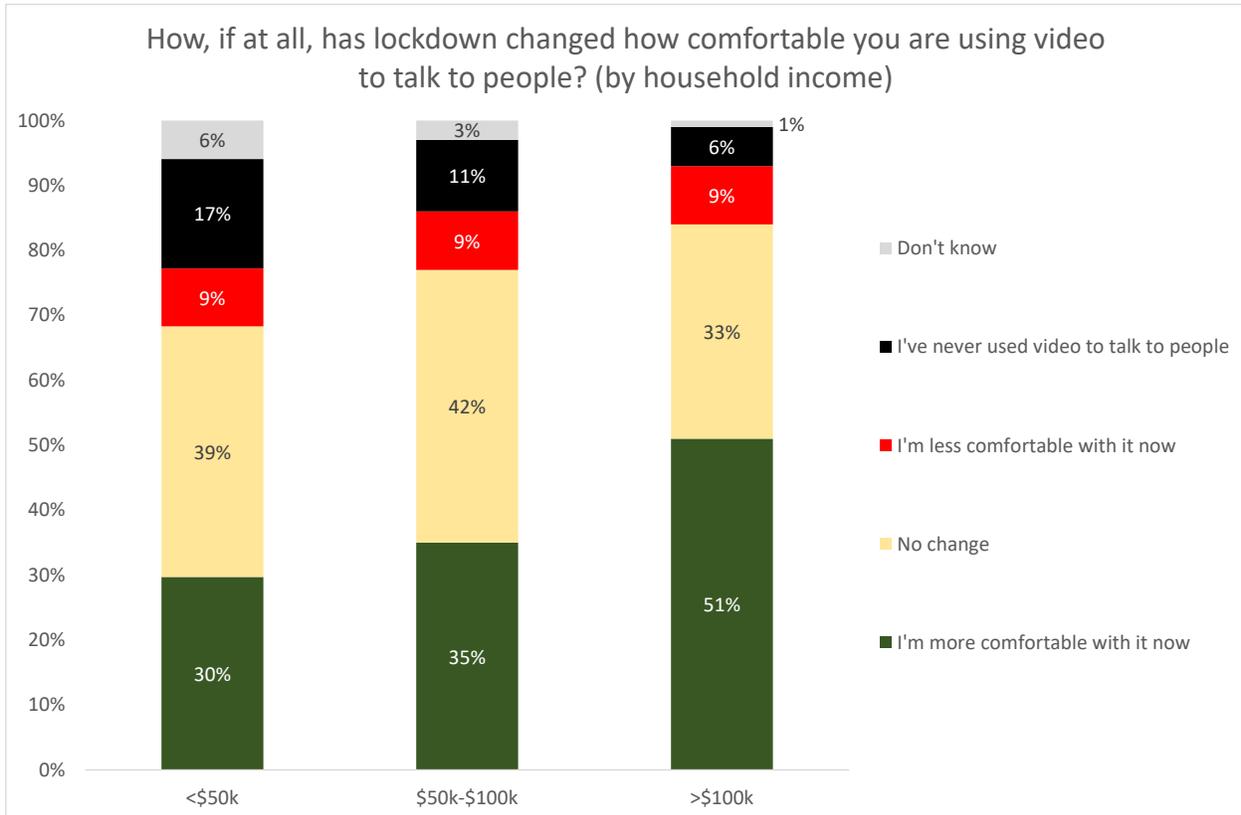How, if at all, has lockdown changed how comfortable you are using video to talk to people? (by household income)

Legend:
- Don't know (grey)
- I've never used video to talk to people (black)
- I'm less comfortable with it now (red)
- No change (light yellow)
- I'm more comfortable with it now (dark green)

<$50k: Don't know 6%, I've never used video 17%, I'm less comfortable 9%, No change 39%, I'm more comfortable 30%
$50k-$100k: Don't know 3%, I've never used video 11%, I'm less comfortable 9%, No change 42%, I'm more comfortable 35%
>$100k: Don't know 1%, I've never used video 6%, I'm less comfortable 9%, No change 33%, I'm more comfortable 51%

Businesses considering whether to implement video communication with customers should take note of these findings: those with larger customer profiles of younger affluent people may be quite optimistic about the take-up of video, while those with older, less-affluent customers may think twice.

What can businesses implementing video agents expect from this new channel, and how should it be approached?

- Many video solutions will allow the same level of recording, monitoring and quality assurance as phone calls, and some also provide the same reporting capabilities that are available for other contact center channels. Some solutions allow agents to initiate video conversations from within any other channel if there is the need to escalate the interaction, and can support bringing in experts from elsewhere in the business for a video conference

- There is no generally accepted physical set-up for video agents: some businesses have video agents working alongside voice-only colleagues, whereas others have a dedicated room with a branded background. In a remote working environment, it is perhaps even more important for a video agent to have a separate space away from the rest of their house than it is for a voice agent, and getting the background and lighting to an acceptably professional standard may prove very difficult for some agents to manage

- Rather than hold music when a customer is waiting in a queue or on hold, personalized videos or relevant adverts could be played to customers.

- Although we have not carried out any surveys looking specifically at customer satisfaction with the video channel, there is numerous anecdotal evidence to show that satisfaction levels are very high, and that NPS scores are better in the video channel than the phone channel. It is probably the case that some of this positivity comes from the novelty value of video and that it is seen as a premium channel by customers, but some of the improvement is likely to be attributable to the improved communication that video offers

- Even if the interaction is suited to video, it may not always be appropriate to carry out a video call: the customer may be at work or not be in an environment where they feel comfortable being on video. In these cases, a one-way video or web chat could be offered, which could then allow deeper interactions if required, for example, screen sharing or co-browsing.

END-USER QUESTION #4:

WHAT SORT OF PRACTICAL ISSUES SHOULD WE CONSIDER WHEN IMPLEMENTING VIDEO AGENTS?

Talkative

Agents must have sufficient bandwidth. A stable connection is important, especially for mobile agents. Agents should also have a reasonable work machine - all smartphones will be suitably powerful, but underpowered laptops may cause issues, especially if multiple applications are required as part of their work. A neutral background is a nicety, although this depends on the type of customer contact you are handling. You may also want to consider video recording and, if you're taking payments, make sure your solution is PCI compliant.

The rapid growth in smartphones has meant that it is now possible to offer a visual representation of IVR menus on a device used to call the business. As it is far quicker to read text than to listen to text being spoken – some studies show that a caller can navigate a visual IVR menu between four and five times quicker than a DTMF IVR menu – the customer experience is improved without sacrificing any functionality or options. Furthermore, visual IVR can be used to send video presentations while waiting for an agent, for educational or marketing purposes, or to answer the self-service requirement (for example, pushing the relevant YouTube clip in order to show the caller how to do something).

Many businesses that use DTMF IVR have made long-term investments in this technology, and retiring the system entirely is not desirable. Giving existing IVR functionality a visual interface simply means that the IVR's path can be shown as a picture on a website or smartphone, with callers touching the selection that they require without having to listen to all of the options or to go up and down levels or branches. This has the dual benefit for the customer of being far quicker than listening to IVR menu options, and of being significantly more likely to get them the correct information or to be routed to the department most appropriate to their needs. Visual IVR menu systems integrate with existing DTMF structures and reuse the same VoiceXML scripts, meaning that any changes made to the existing DTMF IVR system will be automatically replicated regardless of channel or device.

Visual IVR offers companies the ability to develop value-added applications for their customers, rather than simply providing a visual representation of existing IVR menus. For example, in cases where very specific expertise is required, visual IVR can be used to help the caller self-diagnose where in the organization they need to be going, rather than having to speak to a front-line agent who will then have to ask them the same questions in order to route the call to the appropriate resource.

It is worth noting that despite the huge uptake in smartphones and mobile apps, it is very unlikely that customers will find it convenient to have an app for every company with which they deal. Like apps, a visual IVR option provides businesses with an opportunity to display corporate branding and deliver a more engaging customer experience.

Co-browsing (or web collaboration), which sometimes includes form-filling and page-pushing as a subset of functionality, is a very intensive, one-to-one channel, formerly used for high-value customers or in those cases where it is quicker and more effective for an agent to take over the reins than to talk the customer through the process. While it has been useful for certain businesses, processes and customers, it is difficult to make a case for it on a cost-saving basis alone, although it will encourage the completion rate of sales, and as such, improve profitability.

Co-browsing may be used to help customers fill out forms, or to complete online transactions, and may be done in conjunction with a concurrent telephone call or web chat. Unlike page-pushing – which is a one-way movement of information from agent to customer – and screen sharing – where the agent takes control of the customer's desktop – co-browsing is a true two-way collaboration tool. Either the agent or the customer can control the cursor or enter data into fields, and business rules can be set up so that the agent does not see or enter sensitive information.

While it is not a cheap option, cobrowsing, particularly in association with a telephone call or web chat, can be an effective way of closing a high-value sale. It is, however, currently used in relatively few US organizations.
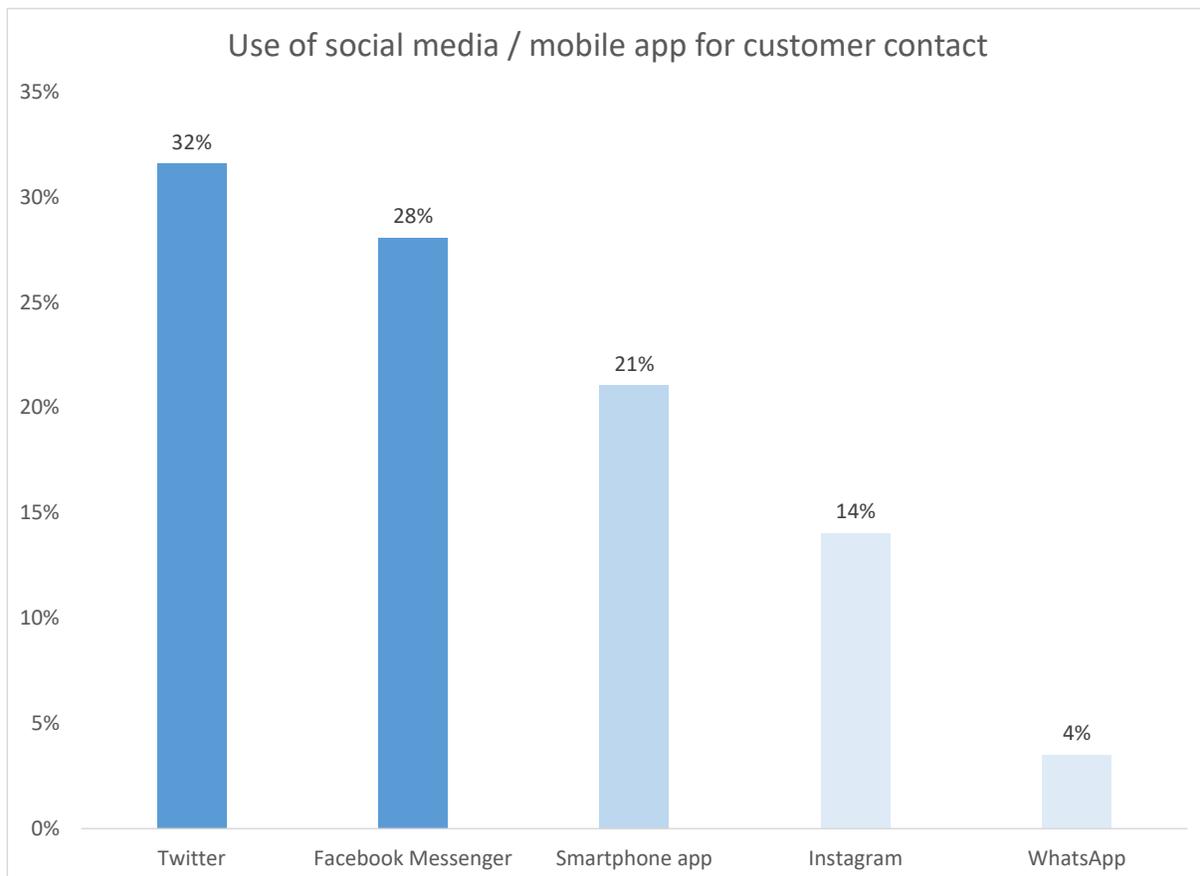
MESSAGING

With well over 1bn active users of Facebook Messenger and WhatsApp, organizations should be actively considering their messaging strategy where customer contact is concerned. Add Twitter, Apple Business Chat, Line (Japan), Telegram and WeChat (China) to the mix, and the vast majority of your customers will be using at least one of these applications, regardless of where they are based.

The process of messaging has the benefit of familiarity with customers, and businesses may wish to investigate including these types of interaction within their agents' web chat screen. As many users live their lives permanently logged into these applications, there is an ease-of-use and ubiquity associated with them.

The applications allow historic records of interactions to be kept (which is not the case with all users of web chat), and messages are private which not only allows customer identity verification, but also will reduce the damage to a business through the public negative messages often seen on social media.

Messaging has a simplicity which is of great interest to customers for whom time is precious. They can fire-and-forget their request, leaving it up to the company to respond appropriately without the customer having to concern themselves about holding for a response, or learning how to navigate a company's website to use self-service.

Figure 11: Use of social media / mobile app for customer contact

Use of social media / mobile app for customer contact

- Twitter: 32%
- Facebook Messenger: 28%
- Smartphone app: 21%
- Instagram: 14%
- WhatsApp: 4%

The familiarity of messaging applications will work well for agents as well as customers, which will reduce training time and cost. Businesses will also need to consider what is an acceptable service level for these channels: as detailed elsewhere the report, web chat is perhaps closest to the telephony channel's service level target, whereas social media is more akin to email. While the asynchronous nature of messaging suggests at face value that customer expectations will be aligned with social media (i.e. hours, rather than minutes), the usual messaging experience of many customers is a rapid, multiple back-and-forth conversation with their personal contacts. This is likely to prove difficult for businesses to match, and expectations of service levels need to be set.

WhatsApp, especially, is often used as a closed, group-based application, and there may be some pushback from segments of the customer community that do not currently associate the use of these applications with business communication. The challenge to businesses will be to persuade customers that letting them into their perceived social circle is worth the effort. This is being made easier by Google and Apple promoting "message" buttons on their online business directories and searches.

Regardless of the familiarity that customers and agents have with new communication tools, channel hopping and the need for these various channels to work together (not siloed) in a unified omnichannel experience will continue to remain a large concern. Organizations must be aware of the customer's intent and journey as more channels continue to become available.

While not suitable for every enquiry or customer, messaging has great potential to become an important customer communication channel, having benefits for both customers and businesses:

- Like web chat, agents handling messages can work concurrently on numerous requests meaning greater cost-effectiveness. A typical messaging agent can work actively on 4 or 5 messages concurrently, but will likely have 3 or 4 times more conversations open

- App-based messaging reports significantly higher levels of customer engagement and lower drop-off rates compared to web chat

- WeChat offers customers an integrated service solution, combining messaging with payment capabilities, keeping their users close. Expect other messaging platforms to develop similar offerings

- Privacy and security: messaging apps focus very heavily on security and confidentiality, which means that companies and customers are confident that their messages will remain private

- Confidence that the message has been delivered and read, as most messaging applications provide notification that the message has been received and opened. Customers tend to keep their notifications on for messaging apps, so they are likely to check the company's responses more quickly than if it were an email

- In-house messaging apps can support geolocation, meaning that relevant service and sales can be provided at appropriate points depending on the customer's physical location

- Messaging allows customers to use different devices: for example, starting a service request in WhatsApp from their mobile phone, and completing it on their desktop computer or tablet

- Messaging supports the use of images, links and video in the conversation

- Offering messaging is likely to provide a modern feel to the brand

- Familiarity: the vast majority of younger people use messaging applications every day, and as this demographic becomes older, they will expect to be able to contact businesses in the same way that they contact friends or family

- Asynchronicity means that the customer can use messaging in the same way that they use email – 'fire and forget – coming back to the conversation hours later if they wish, rather than waiting for an agent to be present or answer (as is the case with web chat). If the customer is in a hurry to do something else, this is positive for them, but if they urgently need an answer to something, messaging may not be the best channel for them to use

- Customers can see the message trail, which does not disappear or have to be emailed to them (as in the case of web chat). The fact that messaging conversations remain on the customer's phone means that not only does the customer have a written record permanently available to them, but that they have then established a relationship with that brand over that channel, meaning that messages coming from the company are more likely to be read and valued. The open rates for messages are many times higher than that for email, and receiving outbound sales calls has never been popular with any customer base, so messaging provides an excellent way to maintain contact and make personalized offers to customers as long as this trust is not abused by over-use or poorly targeted messages

- Messaging may allow multiple parties to join the conversation, such as second-line experts, without the need to put the caller on hold, or to ring back.

Offering messaging for inbound customer communication isn't as straightforward as having agents open WhatsApp and just begin. Like any new channel, it should be opened up gradually after testing and piloting, particularly as asynchronous channels can be difficult to resource effectively, especially if the inbound volumes are unevenly distributed and prone to spikes. Some ideas on how to roll out and use messaging include:

- Agents should be trained on how to respond to messages using appropriate language: generally, an informal approach will be more suited to the channel, although this will depend on the product or service being talked about, the demographic of the customer and the type of company being represented

- Messaging offers the opportunity to use features that other channels don't support as well, such as images and videos

- Messaging is probably more appropriate for simple, non-time-sensitive enquiries, leaving voice and perhaps video for more complex or emotional enquiries, and self-service or web chat for urgent questions

- Customer expectations of response times should be managed carefully: many people using messaging are used to receiving near-instantaneous responses from their contacts, which is clearly impractical for a business. An immediate automated response detailing likely service levels can go some way to solving this issue. It has been stated that the average elapsed time from first message to resolution is around 90 minutes, although of course there are huge variations in this depending upon the complexity of the request, how busy the contact center is at the time, and most importantly, how quickly the customer responds

- Messenger encourages businesses to respond quickly by displaying a "Very Responsive to Messages" badge on the Facebook page if a Messenger response rate of 90% or higher and a response time under 15 minutes is achieved. WhatsApp allows businesses 24 hours to respond for free to messages, otherwise they are charged at a cost that is usually higher than an SMS. Companies may consider implementing a bot which will auto-respond, triage urgent requests, reply to simple questions and hand over seamlessly to live agents if necessary

- Tracking KPIs such as customer satisfaction, average handle time and interaction volumes should be no more difficult than for any other channel, although scheduling staffing for an asynchronous channel which may have significant peaks is likely to be complex

- Using third-party apps (e.g. WhatsApp, Messenger) means that the data is not under the company's direct control and is dependent on the features of that app. Using messaging within the company's own app means that any information can be easily added to their customer record, and that the company can send notifications and offers more effectively rather than getting lost in the noise of a frequently used third-party app

- In the same way as web chat, standardized responses can be templatised and added to a library for agents to choose from, speeding up the interaction

- An omnichannel structure will allow businesses to unify the conversation history across channels, while permitting the features available in each native application

- Messaging won't necessarily be able to handle all of the requirements in an interaction, so the solution has to support seamless hand-offs to other channels like voice, web chat or video within the conversation

- Depending on the volume of messages, automated triaging may be necessary, judging the urgency and importance of the request depending on customer value and the nature of the enquiry. This can prioritize messages, which if they cannot be handled through automation, can be then queued appropriately to agents

- Run a pilot scheme first on a part of the website or your customer base which has a stable amount of interactions. This will allow you to determine the likely take-up, workforce scheduling requirements (capture message volumes, time of day deviations, average concurrent messages and overall handling times). Also, test any automated bots, bot-to-agent handovers and make sure that the information is correctly integrated into your CRM system

- As messages can extend over a long period, consider how open messages will be handled at the end of an agent's shift, and the process of handover. It will take a new agent longer to come up to speed with a long existing conversation, so this should be taken into account in scheduling

- After implementing messaging, be sure to make customers aware that it is there through publicizing it on other channels (e.g. in the IVR queue announcement, on the website or through SMS).

NEXT-GENERATION CUSTOMER CONTACT

While many of these solutions and strategies discussed below are available today, they are not yet mainstream in the same way as established customer contact solutions such as IVR or call recording. In the main, fewer than 10% of businesses currently use these solutions.

CROWDSOURCED CUSTOMER SERVICE

Increasing numbers of businesses are using crowdsourced customer service agents as part of their customer contact mix. This model allows casual and flexible agent resourcing, where remote/homeworking casual agents use a secure platform which routes appropriate requests to them at times which suit. Many crowdsourced agents have this as a secondary job, but choose to do this work for organizations and brands about which they are particularly knowledgeable and enthusiastic. Crowdsourcing is not seen as being about displacing the primary workforce, but augmenting the business's capabilities and being able to scale as and when needed.

Crowdsourced agents can be deployed in many ways, particularly for those issues which involve knowledge of the product or service, rather than requiring any great knowledge of the contact center's internal systems. Technical support and pre-sales advice are often suitable for the crowdsourced model, as expertise, empathy and enthusiasm are valuable traits in these situations. User and product research are also well-suited to the crowdsourced model. Crowdsourcing may also support rapid multi-language support, as agents do not have to be based in a particular country.

While concerns about data security for homeworkers made companies lukewarm about this style of working, the pandemic has proven to many that remote working is a real possibility. Some companies will still have concerns about a loss of control that need to be addressed, but for others, having a knowledgeable and scalable workforce on-tap outweighs this.

Having the capability to decide which type of customer requirement to pass to crowdsourced agents is vital: businesses must take into account compliance, legal requirements, data sensitivity and complexity. If required, crowdsourced agents can carry out many of the tasks that typical agents do, but will need to be vetted. Crowdsourced platforms are also further developing capabilities to allow even greater security going forward.

Some of the advantages of the crowdsourced agent model include:

- **Rapid scalability and flexibility**: unanticipated events can create a massive immediate demand for customer assistance which cannot be handled by a typical contact center set-up. The use of crowdsourced agents allows for rapid reaction within a very short period of time. This also works well in times when it's possible to forecast very high volumes (such as where businesses experience seasonality), and onboarding agents is a much quicker and easier job if they are already experts in a brand's products

- **Brand advocacy**: many crowdsourced agents support companies and products about which they are especially enthusiastic. The passion for the brand which such workers have makes them great advocates for the organization and can improve customer lifetime value

- **Knowledgeability and expertise**: leading on from the previous comment, this passion for the brand and its products / services is likely to translate into in-depth knowledge about many of the issues that customers are facing, as many of the most dedicated crowdsourced agents will have a lot of first-hand experience which they are able to share. This can improve the quality of responses and increase first-contact resolution

- **Cost management**: crowdsourcing usually works by paying agents per-issue rather than a fixed hourly rate, which has the business benefit of controlling costs, and an improved first-contact resolution rate will also avoid the cost of unnecessary repeat contacts. Having at-home workers also means that real estate costs can be less than otherwise

- **Extended hours**: many crowdsourcing agents have a primary job, which means that they can only work a second job in the evenings or at weekends, times at which the typical contact center agent may not want to work

- **Reduced attrition**: allowing crowdsourced agents to work the hours which suit them means that they are less likely to leave the company

- **Supporting the digital contact center:** crowdsourced customer contact is generally seen as being more suited to digital channels rather than telephony, meaning that new channels can be rolled out more quickly without the business having to be as concerned that these will impact negatively on the existing telephony channel. Many of these interactions will be asynchronous (e.g. email or messaging), which means that crowdsourced agents can dip in and out of the conversation over a period of time – the customer will be doing the same – which means that the issue or question can be resolved by a single agent rather than the centralized model of having to hand over to another agent if their shift is over

- **Diversity and opportunity:** crowdsourced homeworking can bring talented people into the active workforce more easily, such as homemakers, those with disabilities and retired people

- **Multi-language support:** crowdsourced agents can be based anywhere in the world, meaning that multilingual support is more quickly and easily available

- **Environmental benefits:** reducing the number of journeys that employees have to make to go to work has a positive effect on the environment.

The old industrial production-line model of the contact center, which concentrated on call throughput, is long dead. Recently, businesses have looked at increasing the level of personalization they can offer to their customers, tailoring the experience to take advantage of the new technologies which support a one-to-one conversation. This desire to get closer to the customer will be a defining element of the next-generation of customer contact.

Customer personalization has long been within the remit of organizations' marketing departments which, despite doing so at scale, try to make new and existing customers feel that offers and products are tailored specifically for them.

Moving beyond the mass-production model employed historically in many contact centers, customer personalization has recently become of great interest to businesses looking to improve their customer experience within the contact center and other service channels.

By doing so, businesses aim to extend the positive reach of the brand beyond the original marketing touch-points, keeping customers positively engaged and turning them into loyal, long-term advocates for the organization.

To do this effectively at scale, there are numerous requirements, solutions and techniques including:

- a clean and preferably large pool of customer data that is accessible in a timely fashion by any person or system that needs it

- the segmentation of customer types and personas which provide a starting point for understanding the requirements of a particular customer and make successful outcomes more likely

- various customer identification techniques – preferably requiring a low effort from the customer themselves – which can then allow other systems to decide how best this particular customer can be served

- the automated analysis of large pools of customer data will allow businesses to recognize likely customer intent and predict the next best action, whether through a live agent or automated system

- the ability to understand all elements of the customer's history, including all interactions regardless of channel

- the capability to offer consistent levels of service across any channel that the customer chooses to use

- agent assistance and augmentation solutions which can provide an agent with relevant information and suggest successful actions and resolutions in real-time

- the ability not only to ask and measure what customers feel about their experience, but then to act upon this immediately: for many instances of negative feedback, a successful customer rescue can in fact lead to greater long-term advocacy and brand loyalty.

Contextual data provide a great opportunity for businesses to deliver timely personalized service in a cost-effective and profitable manner. The nature of mobile devices means that businesses potentially have the opportunity to know more about their customers and their specific requirements and preferences than ever before.

This includes:

- Customer identity: once the customer has identified themselves, such as by logging on, or through the mobile phone number, this allows the agent to access their existing customer history in the same way that would be done so on a phone call into the contact center.

- Geographical information: smartphones are GPS-enabled, allowing agents to see where customers are, and to direct them to the nearest shop, for example (where permitted by privacy laws)

- Historical activity: if the customer has been browsing a mobile website or app beforehand, the information that the customer browsed previously may be useful for the contact center agent to have to hand, in order to see and understand what the customer has already tried to do.

- Stored data: the mobile device may have data stored that identifies the customer, such as account number, that can speed up the interaction and make it more effective.

- Collected information: the mobile device may also be used to capture and share information with the business such as photographs or videos. It may be possible to automate a two-way interaction: for example, a customer may use their mobile phone to scan a QR (quick response) code on a product. Using the information on the code, as well as the customer's input into the app about what they are trying to do, the customer may be directed to the correct place within business's self-service function in order to solve the issue that they have. This can take the contact center out of the equation altogether, resulting in reduced costs for the business and a quicker and more effective customer experience.

The future of mobile customer contact is also likely to include the use of micro-apps, which work by the customer clicking on a link that has been sent to them which opens up what looks like a company-branded app, but does not require the customer to visit an app store, search for the right app, download it, login and navigate to the right place. This will have a significant positive effect on customer effort and will also provide the business with opportunities for personalization as they will be able to send the customer exactly what they need and what the business wants them to see. It will also not require the customer to clog up their phone with dozens or even hundreds of apps which are difficult to find and may be rarely used in any case.

For more information about personalization and contextualization, please download "The Inner Circle Guide to Customer Engagement & Personalization".

Predictive Routing

Personalization can be particularly effective when used even before the customer has spoken.

While CTI-like screen popping is useful for cutting time from the early part of a call, the insight that this functionality provides is often limited. AI enables an instantaneous gathering and assessment of data from multiple sources to occur even before the call has been routed, which allows accurate prioritization and delivery of the call.

For example, an AI working in an airline contact center may judge a call to be urgent if the caller:

- Has booked a flight for this day
- Rarely calls the contact center, preferring to use self-service
- Is a frequent flier
- Is calling from a mobile phone rather than a landline
- Shares a similar profile with other customers who only tend to call for very urgent reasons.

In such a case, the AI may consider that there is a likelihood that the call is directly related to the flight that is happening today (e.g. there's a danger of missing the flight and the customer may need to rebook), and is able to move the call to the front of the queue and route it to an agent experienced in changing flights, and whose communication style suits the situation and customer profile.

Taking this a step further, the AI is able to augment the conversation with suggestions based upon what the agent is doing on the screen and also, through listening to the details of the conversation, is able to provide relevant information without the need for the agent to search for it, such as the next flight to the customer's proposed destination or the refund / transfer options. At the end of the call, the AI can then email or text the agreed solution to the customer without the agent having to do this manually.

Without doubt, AI will become a major part of many contact center operations within the next few years (see ContactBabel's "The Inner Circle Guide to AI, Chatbots & Machine Learning" for more detail). The next section looks briefly at how AI and agents will work together to improve customer experience while managing cost and performance.

The use of AI to assist agents in real time within a call offers the chance of a real paradigm change: by the nature of the job, an agent-customer interaction has always necessarily been between two people, and the level of support that an agent can actually receive within a call is very limited. Advice on learning points have usually been restricted to post-call reviews, rather than realistically being able to improve the outcome of the interaction in real-time, and although whisper coaching within the call can be used, it is quite limited.

AI offers an opportunity to provide timely and effective support to every agent as necessary, actually within the call. AI can provide the agent with suggestions about next best action, pull up relevant information from the knowledge base, make suggestions based on customer history and sentiment about optimal cross-selling and upselling opportunities, and even the style of conversation that this customer may prefer. This has a positive impact on first-contact resolution as well as customer experience, and is of particular use to less experienced agents and for unfamiliar subject areas.

Bots monitor the real-time desktop and voice data, triggering processes such as information provision and back-office processes. They can also provide coaching or alerts if there's a lengthy pause in the conversation or anything has been done wrong. Agents can also use specific phrases, such as "I'll just look that up for you", triggering the bot to take action and putting the information on a single agent desktop application.

AI can be trained to understand intent and recognize patterns through immersion in vast quantities of historical data, so that when a call is taking place it can draw upon this knowledge and provide advice or action that has proven successful previously, moving towards the actual provision of real-time analytics.

AI assists in real-time speech analytics through applying the results of machine learning that have been carried out on large quantities of previously recorded conversations, providing:

- agents with the understanding of where their conversational behavior is falling outside of acceptable and previously successful norms (such as speaking to quickly or slowly, or in a monotonous fashion)

- an assessment of the meaning of non-verbal cues such as intonation, stress patterns, pauses, fluctuations in volume, pitch, timing and tone in order to support sentiment analysis

- understanding the actions and information that have been seen to provide successful outcomes in previous similar interactions, and relaying this to the agent within the call.

A combination of customer feedback and interests can be used to develop a customer profile, adding metadata around purchase history, demographics and lifetime value. Past customer outcomes with similar customers can be used to predict the best offers, communication method, channel and actions with that customer.

AI can work alongside agents to provide relevant knowledge that may be otherwise take a long time to find, and update the knowledge bases available to humans and AI self-service systems using an automated feedback loop that is constantly improving based on actual outcomes.

It's possible to fix customer service problems before they occur: for example, sudden numerous requests about the same thing is likely to indicate a breakdown in a specific business process or the occurrence of an outside event. AI can quickly recognize that this is an issue, and deliver information solutions to an agent's screen, to the chatbots and note that changes should be made to the IVR announcement.

SENTIMENT ANALYSIS

Sentiment analysis is a way of quantifying customer and agent emotions within interactions, whether on the phone or through an alternate channel, for the purpose of uncovering processes, behaviors and situations which cause strong levels of positive or negative sentiment that could affect business outcomes and customer experience. Using analytics and large data sources, datasets can be searched to identify and inspect the types of interaction that have major impacts on customer sentiment.

Agents, especially those with higher levels of empathy and experience, should be able to identify the emotions of the callers, so using technology for sentiment detection could seem at first glance to be an unnecessary elaboration. However, the use of analytics means that the sentiment and emotion of millions of calls can be assessed against their ultimate outcome in order to identify in real-time situations that have a higher likelihood of a negative outcome and to act before it's too late.

While language models can identify ostensibly positive and negative words and phrases, they cannot in themselves identify sarcasm or other less straightforward forms of communication, and they are less likely to identify the actual meaning in a series of conflicting positive and negative comments (e.g. "I'm happy that the product has **finally** arrived – I mean, this is good, but not exactly great, you know?"). Sentiment models are further trained to notice changes in tone, volume and speaking rate, instances of agent/customer talkover and the detection of laughter, silences or sub-audible noises expressing emotion, such as a snort of disgust.

Each interaction can then be scored on a sentiment scale from highly positive to highly negative, with nuances such as conversations which start positively and then turn negative able to be selected for root cause analysis. It is interesting to note that sentiment expressed towards the end of the call is a much better prediction of customer satisfaction than any emotions expressed at the beginning of the call: this makes sense, as a customer could easily be stressed if they have had to wait in a long phone queue for an urgent matter that they are concerned about, but if the agent resolves the query to the customer's satisfaction, there is likely to be a positive sense of relief and gratitude expressed, which is likely to indicate a good customer experience.

While sentiment analysis captures and analyses every interaction, it is generally thought to be of most use at an aggregated level rather than in judging particular individuals. Sentiment analysis can identify those processes, interactions and subject areas that are causing customers the greatest stress and negativity, and can view trends over time which allows the business to gauge whether any business or process improvements that they have made as a result are actually working. Some businesses decide to look at sentiment at a team and individual level as well, but great care must be taken not to attribute negativity to a specific agent rather than the topic or product under discussion.

Sentiment analysis is potentially a very powerful tool and in common with the rest of the interaction analytics functionality it has many potential applications:

- Discovery and categorization: by analyzing thousands or millions of interactions, sentiment analysis is able to show the products, processes and topics which most often provoke the strongest negative or positive reactions, categorizing them automatically for root cause analysis

- Quality assurance: interaction analytics is often used to analyze 100% of calls, rather than having a supervisor listen to a random, small selection which may not be representative of agent performance, and which may miss major opportunities to improve. Sentiment analysis plays a part in quality management, but an expectation of a correlation between poor agent performance and negative sentiment should not automatically be assumed. Analyzing metadata such as the topic under discussion should indicate whether this negativity arises from a specific agent performance or is more likely to be linked to the subject matter

- Having said this, sentiment analysis can be a useful tool to use in order to rank agents by capability, in order to understand the behaviors and characteristics of top performing agents so that underperforming employees are able to be coached on these effectively

- As mentioned above, negative sentiment may be linked to a particular topic product or process. A dataset analyzed by a sentiment model can be searched by product, giving a rapid answer to whether it is seen by customers as being broadly positive or negative. Delving further into the data – for example, looking only at the negative sentiment associated with a particular product – may identify areas for improvement (e.g. while the product performance itself scores highly for positive sentiment, the instruction manual scores negative, identifying an area for improvement)

- Some businesses use sentiment analysis to consider factors such as agent morale and motivation. This can be particularly useful in a sales environment, where the enthusiasm or otherwise of the agent can make a significant difference to the outcome

- Real-time sentiment analysis may be useful for offshore agents who have a different cultural and first-language background to that of the caller

- Some solution providers have recently noted that it is not only what we might consider the keywords within the conversation that indicate sentiment (e.g. "upset", "disappointed", "recommend"), but also the filler words (for example, if the inclusive "we" changes to "you", which may indicate estrangement from the brand.

- Sentiment analysis has been shown to be useful in predicting NPS, and is also useful in targeting customer satisfaction surveys. For example, for interactions with negative sentiment around a specific topic, a survey can be sent that asks customers specifically what went wrong with that issue, rather than relying upon a broad-brush general NPS approach with an open-ended question

- Sentiment analysis can identify stress in real-time, which may be an indicator that fraud is taking place, prompting the agent to take the caller through more detailed levels of security in order to prove their identity. This can be used in association with voice biometrics and/or phoneprinting, in order to identify the callers requiring stronger authentication, a topic which is considered in the next section.

Customer identity verification has become increasingly intrusive and inconvenient for the customer, who is expected to remember an array of IDs, passwords, PINs, memorable information, or details of their last transactions. Customers can undergo a 'Spanish Inquisition' before being permitted to make their enquiry or place their order, not only reducing customer satisfaction, but also costing businesses time and money. It takes an average of 30 seconds to verify a customer's identity manually, and this mounts up considerably: the US contact center industry spends almost $10bn each year just to verify the caller is who they claim to be and are permitted to do what they are asking.

Identity verification processes are typically based on one or more authentication factors that fall into the following generally accepted categories

- something you know: e.g. password, PIN or memorable information

- something you are: a biometric such as a fingerprint, retina pattern or voiceprint

- something you have: a tangible object, e.g. a PIN-generating key fob, or the 3- or 4-digit security code on payment cards.

Combining these factors creates a more complex, and potentially more secure two-factor or three-factor authentication process, although being able to rely upon a previously enrolled voiceprint or having the calling device, location and other factors assessed pre-call (rather than have to remember various pieces of information or carry round a code-generating device) can make identity verification far quicker and easier for the customer.

Voice verification systems use spoken words to generate a voiceprint, and each call can be compared with a previously enrolled voiceprint to verify a caller's identity. Systems generate a voiceprint by using spoken words to calculate vocal measurements of a caller's vocal tract, thereby creating a unique digital representation of an individual's voice, as well as other physical and behavioral factors, including pronunciation, emphasis, accent and speech rate. These systems are not affected by factors such as the caller having a cold, using different types of phones, or aging.

It is also possible to use contextual analysis, such as the caller's geolocation (as detailed from their mobile phone's GPS coordinates, or their ANI) to add another layer of confidence in the security process, automatically notifying the agent whether the caller has been identified successfully and guiding the agent to ask alternative questions if further verification is required.

Contact centers wishing to deter fraud should consider combining voice biometrics with phoneprinting technology for a multi-layered solution. Phoneprinting relies on background audio, source, and channel features that are more difficult for an adversary to manipulate than voice. Phoneprinting can detect ANI spoofing, voice distortion, and social engineering-based fraud attempts, which voice biometrics may have missed.
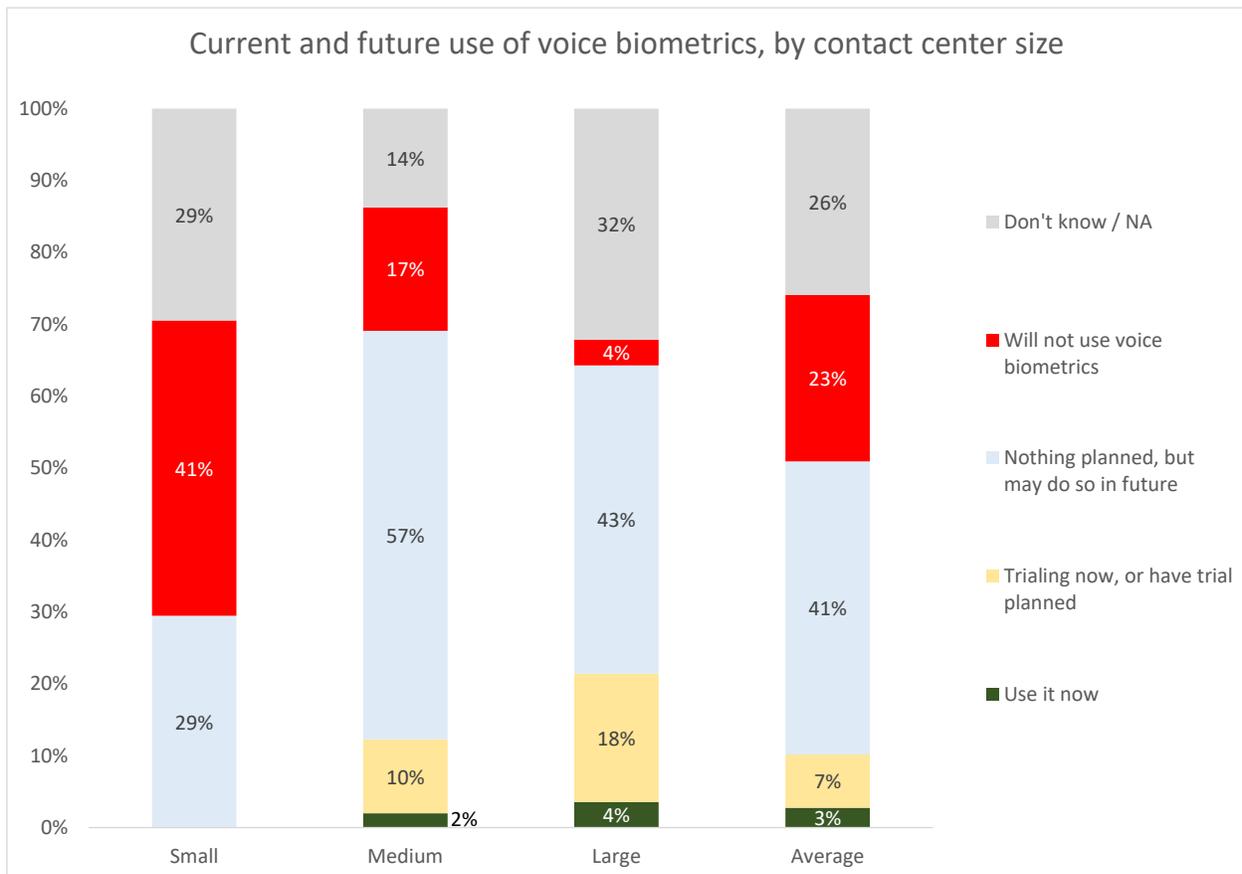
The interest in using voice biometrics for customer authentication is tipped more towards larger operations, which are more likely to have high call volumes, meaning that 30 seconds or more cut from each call would add up to a very considerable saving, without affecting the customer or agent experience negatively.

Finance, medical and TMT (technology, media & telecoms) respondents were most likely to look favorably on voice biometrics, and although the argument has certainly not yet been won, there is a very significant increase in interest compared to previous years, especially in large contact centers.

However, 26% of respondents do not yet have a firm view on whether or not voice biometrics is a solution they would even consider implementing.

Usually, it is respondents from the largest contact centers, with the greatest call volumes who are most interested in voice biometrics, although some smaller operations are also showing interest. Large operations can benefit not just from fraud reduction, but also from the significant cost savings associated with secure customer authentication on a large scale.

Figure 12: Current and future use of voice biometrics, by contact center size

Current and future use of voice biometrics, by contact center size

Legend:
- Don't know / NA (grey)
- Will not use voice biometrics (red)
- Nothing planned, but may do so in future (light blue)
- Trialing now, or have trial planned (yellow)
- Use it now (dark green)

Category	Small	Medium	Large	Average
Don't know / NA	29%	14%	32%	26%
Will not use voice biometrics	41%	17%	4%	23%
Nothing planned, but may do so in future	29%	57%	43%	41%
Trialing now, or have trial planned		10%	18%	7%
Use it now		2%	4%	3%

VIRTUAL & AUGMENTED REALITY

VR (virtual reality) and AR (augmented reality) are currently mainly used for entertainment purposes, particularly in gaming. While the wholesale use of VR/AR for mainstream customer contact is still some way away, it's worth mentioning what's happening today and what VR/AR could be used for in future.

Virtual reality requires a VR headset which then becomes the entire perceived environment for the user, such as in the case of VR gaming. Augmented reality adds to the user's real-life experience by overlaying graphics on top of a smartphone or other visual device, while still being able to interact with the real world. Pokémon Go or Snapchat filters are examples of AR.

VR/AR is currently being trialed or used in a small number of cases for customer support, mainly for pre-sales, where customers can visualize a product or set of products (e.g. a kitchen design), allowing them to see how items would fit together. Alibaba's VR store (Buy+) is currently in trial, and provides customers with 360-degree views via a VR headset and two handset controls. VR would allow massive virtual stores to be built, putting further pressure on brick-and-mortar stores and businesses. VR/AR could also be used for technical support where written instructions are complex and use jargon, showing the customer exactly how to do something and allowing the agent to make sure that they are following instructions.

WebXR is a new API standard, allowing developers to create VR or AR applications without having to deal directly with each type of VR device, allowing users to use a web browser to view VR / AR content rather than requiring an app to be downloaded, which encourages usage and reduces customer effort and development costs.

WebAR (web-based augmented reality) is possibly more relevant to customer contact, directing customers to a URL where the experience launches automatically. 5G rollout will provide the necessary bandwidth to support the required frame rates and complex animations, although the user's device and operating system could be an inhibitor to accessing the full experience. WebAR could be used for technical support, giving visual practical guidance to customers in a step beyond a video tutorial, as well as showing a customer what they would look like wearing a particular item of clothing.

Up until very recently, the majority of US contact centers worked as a traditional, centralized model, with fewer than 15% of agents working remotely at home on a permanent basis. Faced with the challenges of continuing to run contact centers in an environment decimated by coronavirus, many businesses urgently implemented business continuity plans which usually involved remote working.

The growth in remote working can be seen in the following chart: in 2019, 19% of respondents did not use any homeworking, a figure which was zero in 2020. Even more striking is the fact that only 10% of 2019's respondents had more than half of their staff working remotely, which increased to 87% in 2020.

It is interesting to see that there is expected to be only a very gradual decline in remote working planned in 2021. Of course, this is likely to be a factor of the uncertainty surrounding the future and may well change significantly once confidence in public health is re-established, although there is a widespread expectation that a hybrid model will be widely used, where agents split their time roughly equally between home and office. This allows the benefits of being in a team environment (easier training, coaching and team-building), while reducing commuting and promoting flexibility.

Figure 13: Proportion of agents homeworking, 2019 - 2021

Proportion of agents homeworking, 2019 - 2021
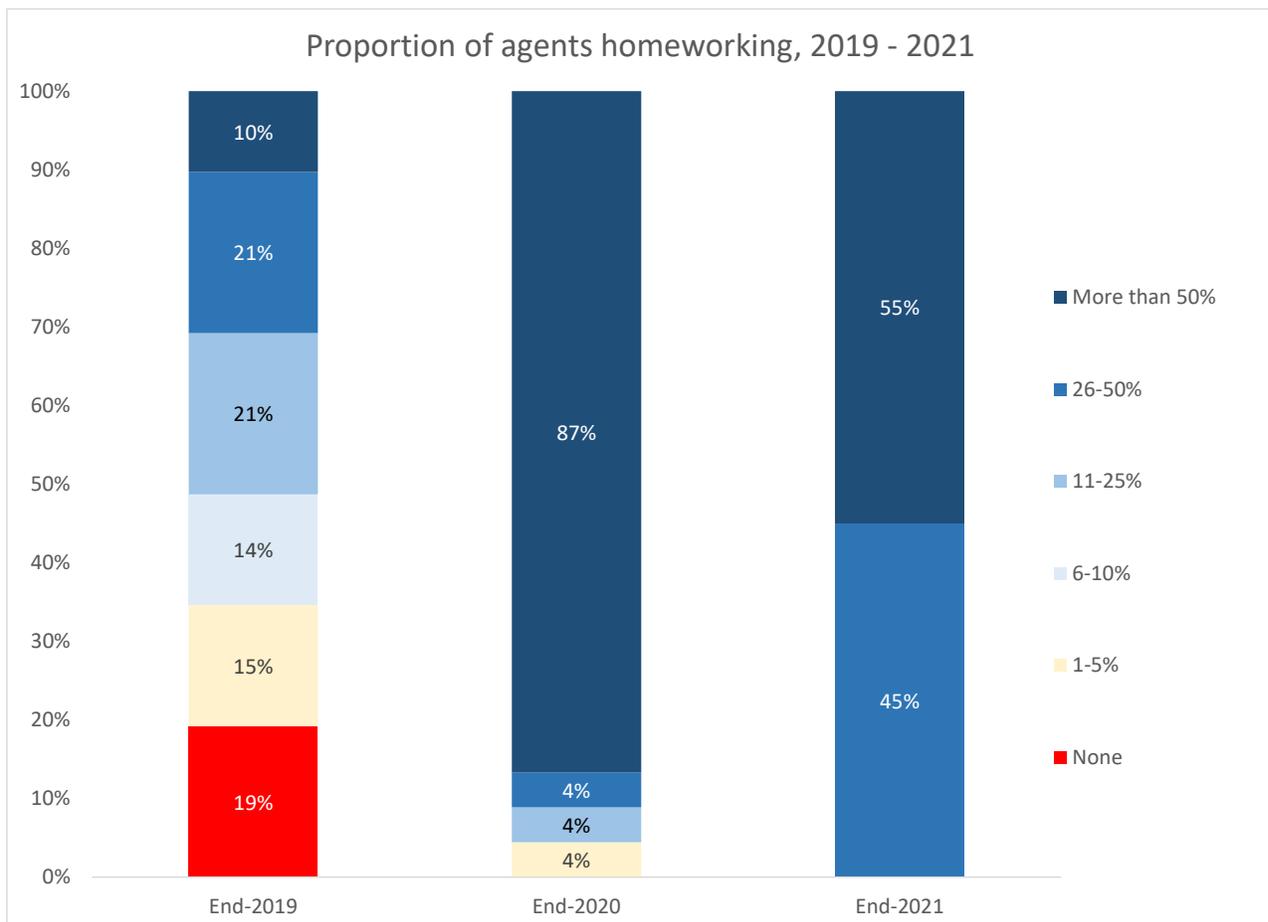
Apart from business continuity, homeworking / remote working promises contact centers significant benefits, including:

- the environmental benefits of working at home, reducing carbon emissions and decreasing congestion on the roads

- while offshore contact centers can be unpopular with customers, businesses still need to look at ways to cut costs, which include targeted working hours and reduced rent on office space

- increased flexibility in working hours means rapid response to call spikes and reduced idle time

- increasing costs of recruiting and retaining staff allow agents outside the commutable distance to be employed at times that suit them and the business.

Remote working opens the door to the sorts of people who might not otherwise seek employment in a typical contact center but who would happily work in their own home taking calls. For an industry facing cyclical difficulties in the recruitment of employees who themselves are having to become more highly skilled and deal with more complex issues year-on-year, this opportunity to deepen the labor pool without widespread pay increases should not be ignored.

More information on remote working can be found in ContactBabel's "The Inner Circle Guide to Contact Center Remote Working Solutions".

Businesses' interactions with customers will become a highly polarized mixture of the automated and the personal touch. Moving a large proportion of interactions onto self-service reduce business costs, and is increasingly popular with a customer base that is becoming more sophisticated and demanding in what it expects from self-service. AI takes this a step beyond, offering personalized service without the need for a human agent in some cases.

In the longer-term, there's no doubt that AI will be used as a key part of handling customer interactions in most businesses, but the question is: how? The use of AI should be focused on use cases where the AI does a better job than a human, whether that's being quicker, more accurate, available 24/7 or able to see patterns in data that no person could see.

We can also expect to see personal technology applications seeking out the best deals on offer, or interacting with a business on behalf of customers without involving the customer at all. This leads to the conclusion that many customer-agent interactions will be exceptional, such as a complaint, an urgent or complex issue or a technical query that an FAQ or customer community couldn't solve. It is also likely that whole segments of the customer base who don't want automation at all will be handled directly by live agents in many cases.

Many self-service scenarios suggest a world in which customers speak directly to 'intelligent' systems, but an e2e world is becoming real, where systems talk directly to other systems without a human being involved at all. The customer will delegate many of their business interactions to an intelligent device, which will store information such as personal preferences, financial details and individuals' physical profiles. Customers will instruct the device to research the best deals for products and services, and to come back to the device's owner with the best selection. The personal AI would 'call' the relevant contact center (which could in fact be either a AI or possibly a live agent in some cases) and even purchase the best deal without having to involve the owner in any way.

The same principle applies to customer service: using the 'Internet of things' means that, for example, utilities meters send their own readings to suppliers on request, and a manufacturer can detect when a part on an appliance is about to fail, and organize a replacement part and engineer visit with the customer's permission.

END-USER QUESTION #5:

HOW DO YOU SEE THE CONTACT CENTER OF 5 YEARS' TIME BEING DIFFERENT FROM TODAY?

We believe that phone calls will no longer be the primary communication channel for many organizations, as customer contact is increasingly embedded into digital channels. Website-embedded contact offers many advantages. These include driving sales, lowering costs through self-service, and improving the customer experience with more convenient and personalized contact methods. Contact centers will need to adapt by ensuring agents have the right tools to help customers on their digital channel of choice.

ABOUT CONTACTBABEL

ContactBabel is the customer contact industry expert. If you have a question about how the industry works, or where it's heading, the chances are we have the answer.

The coverage provided by our massive and ongoing primary research projects is matched by our experience analyzing the contact center industry. We understand how technology, people and process best fit together, and how they will work collectively in the future.

We help solution providers of all sizes to develop their contact center strategies and talk to the right prospects. We have shown the UK government how the global contact center industry will develop and change. We help contact centers compare themselves to their closest competitors so they can understand what they are doing well and what needs to improve.

If you have a question about your company's place in the customer contact industry, we can help you.

Email: info@contactbabel.com

Website: www.contactbabel.com

Telephone: +44 (0)191 271 5269

FURTHER CONTACTBABEL REPORTS

The US Contact Center Decision-Makers' Guide: results of the largest annual survey of US contact center operations. Free to download.

The US Contact Center HR & Operational Benchmarking Report: detailed information on salaries, attrition, absence, recruitment and performance benchmarks, costing $495 + VAT.

The Inner Circle Guides: detailed analyst reports on key technologies, including:

- AI, Chatbots & Machine Learning
- Cloud-based Contact Centers
- Customer Engagement & Personalization
- Customer Interaction Analytics
- First-Contact Resolution
- Fraud Reduction and PCI DSS Compliance
- Omnichannel
- Outbound & Call Blending
- Remote Working
- Self-Service
- Voice of the Customer
- Workforce Optimization.

All Inner Circle Guides are free to download. Further information and downloadable reports can be found at www.contactbabel.com.