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DECLINING CALLS AND CHANGING BEHAVIOUR

C20190337

A QUALITATIVE RESEARCH STUDY

FINAL REPORT

PREPARED: JANUARY 2020

PUBLISHED: AUGUST 2020

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1. Executive Summary

1.1 Introduction

The way consumers and micro-businesses use communication services is changing. This research was designed to understand the drivers of these changes.

In particular, Ofcom wished to enhance its understanding of why the volume of landline calls has declined. The aim was to help Ofcom understand the markets it regulates and to ensure that any changes in behaviour were not being caused by consumer detriment.

Against this background, Ofcom commissioned Futuresight in July 2019 to conduct in-depth interviews with a cross-section of 52 consumers and 12 micro-business decision-makers across all four UK nations, covering urban, suburban and rural locations.

The fieldwork was conducted in September 2019. Full details of the study's background, objectives, method and sample are in Section 2.

1.2 Summary of key insights

1.2.1 How and why is consumer communications behaviour changing?

Many consumers believe that they now communicate more, and more easily, than in the past. The main drivers of this are:

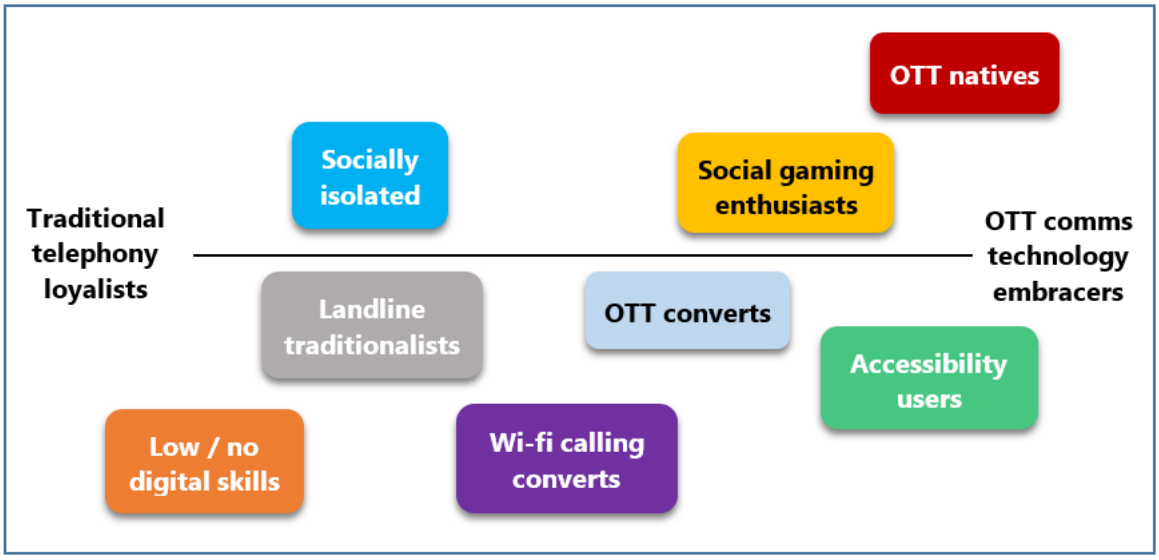
- Access to and use of a wide range of devices, methods and platforms, offering a choice of alternatives for communication.
- Perceived ease and convenience of access to fixed and mobile broadband – anywhere, anytime.
- The 'unlimited' and now more affordable nature of mobile network services.
- The predominance of mobile-to-mobile communication.
- The social networking aspects and benefits of Over-the-Top (OTT) communication and particularly Instant Messaging.

This research suggests that OTT communication, and particularly Instant Messaging, appears to have partially displaced traditional voice calls (mobile and landline).

Why is the time spent on landline calls declining?

The great majority of consumers have migrated to mobile and OTT technology and away from traditional telephony.

Figure 1: Key consumer types[1] identified and their migration to mobile and OTT communication technology:



The types identified and positioned to the right of the above spectrum comprise the majority in the sample. These participants claimed that they have been 'pulled away from' traditional telephony and are heavily drawn to the perceived features, benefits, ease and rewards of OTT communications technology. Some younger participants were 'natives' in the sense of never really knowing anything different. Others in older age groups have been converted, whilst still others (with a disability) have moved to mobile OTT communication because of the accessibility features that are offered.

The types identified and positioned toward the left of the spectrum were a minority. These types have 'stayed put' and continue to rely on traditional telephony, making use of a landline and / or the basic voice calling and SMS texting functions of a mobile phone. They claimed to do so because of habit and familiarity. Many also had a lack of perceived need for (or aversion to) the features and benefits of OTT communications technology.

[1] Detailed descriptions of the types identified are provided in Section 6.

Landline traditionalists in particular are typically an older generation. Most considered traditional telephony to be superior in terms of sound quality and reliability. Landline calling also provided them with easy access to an established social network of other landline users.

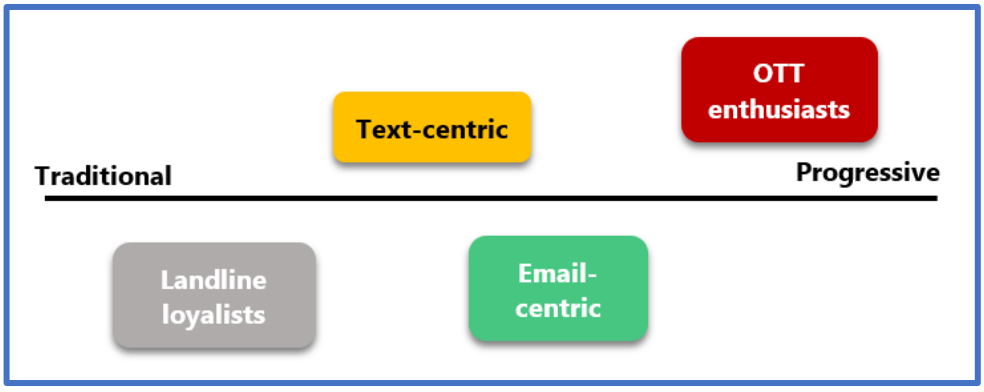
Others in this minority, across all age groups, were using a landline because they lived in a mobile not-spot area. Some of the micro-business owners described having a landline at home which they used for work purposes. They preferred using a landline to receive work calls as they thought it conveyed a solid professional image and a specific location to their clients and customers.

1.2.3 How is micro-business communications behaviour changing?

Among many micro-businesses in the sample, there were signs of a weakening dependency on landline. Multiple alternative technology devices, communication methods and platforms[2] were preferred. In particular, these were email and mobile, but increasingly Instant Messaging.

The key business types identified varied along a spectrum, as indicated in Figure 2 below. In this, the indications are that some business types are motivated to change by adopting newer and different forms of communication technology. Others were happy with traditional telephony.

Figure 2: Key micro-business types identified and their migration to mobile and OTT communication technology:



[2] We define communication methods as voice calling, video calling, instant messaging, texting and emailing. A platform is a base upon which a set of methods are run or implemented. An example of a platform is WhatsApp, or Facebook messenger, which hosts a range of communication methods, i.e., voice, video and Instant messaging in the form of a single app or application.

The drivers for this tended to relate to business needs. Among those seeking to change, many claimed they wanted to (i) increase reach to new and existing customers and clients, (ii) increase speed, efficiency and productivity, and, in some instances, (iii) engage more deeply, and less obtrusively, by mirroring method(s) of communication that are used by their customers or clients. A major factor in this was a concern to reach and connect with younger customers or clients.

The need or desire to appeal to an older generation of customers was more prevalent among the landline loyalist micro businesses. Some said that their reliance on landlines is decreasing but this change is very gradual. Although they were observing more of their older customers starting to use mobile phones, they believed that most still expected to see a landline number for a business and find the landline number reassuring.

These micro-businesses claimed to be happy with traditional telephony. Some had not thought about changing – having not felt any pull to new technology. Others were averse to change. This was due to a worry that the loss of a landline would mean a loss of location identity. Moving to the use of a mobile number was also a concern. This was due to a fear that customers would think of their business as less trustworthy and reputable, i.e., a 'fly-by-night', rather than a permanently established entity. Another concern was loss of control over the timing of incoming calls. Some believed that a landline number was strongly associated with 'office' hours, where mobile wasn't.

1.2.4 Do any of these changes indicate or lead to harm or detriment?

Our research found little evidence that migration to mobile and OTT communications technology has harmed consumers or caused any major detriment.

Some, who have **not** migrated, did consider themselves to be digitally excluded. For example, some found it increasingly difficult to reach and communicate with younger family (children and grandchildren) if they were not using Instant Messaging. This said, it was rare to find that this form of exclusion was considered harmful. For the most part, traditional telephony, in the form of a landline, plus basic mobile network calling and SMS texting, was felt to provide well for their needs.

Equally, there was little evidence that people have stopped or reduced their usage of a landline because they have been harmed. Furthermore, very few perceived that loss of access to a landline in the future would be harmful or detrimental.

The decline in landline use relates much more strongly to a positive and major shift in preferences for alternative methods of communication. The exception to this was those who continue to have a strong, non-substitutable need and reliance on a landline. These are:

- People who were reported to us[3] as living in an area with a good mobile signal but being unable or unwilling to migrate to mobile and OTT communications technology. Typically, they were described as the very older generation (around 85+ years old). Very few were known to be able or willing to make use of a mobile phone, regardless of living in an area with reliable mobile phone signal access.
- People, wanting to make use of mobile, but living in mobile not-spot areas. These people felt that they needed to rely on a landline. We spoke to several within our sample.

For those still reliant on a landline, it was felt that a potential loss of traditional landline telephony[4] in the future would mean being cut off from the outside world and having no access to emergency services.

Similarly, **micro-businesses** who were currently reliant on a landline, claimed that a sudden loss of landline communication would be detrimental to their business. This was because they were dependent on customers calling their landline number. Some felt that they could adapt with sufficient notice of change, in line with a slow-paced shift to mobile numbers and OTT forms of communication. The exception to this were businesses operating in mobile not-spot areas.

[3] People in this category were described to us by some of the participants in this study (e.g. parents, friends, neighbours or people they cared for), i.e., none appeared themselves in our sample.

[4] We refer here to the landline service itself, irrespective of whether it is delivered by copper, VOIP or cable.

2. Introduction

2.1 Background

There has been a significant decline in landline calls made by UK residents and businesses. Over 100 billion minutes of calls were made in 2012; 44 billion minutes of calls were made in 2018[5]. SMS text messages have also reduced over this same period.

By contrast, the number of mobile network call minutes has risen: 132 billion mobile network call minutes were made in 2012; 161 billion mobile network call minutes were made in 2018. A large rise has also occurred in mobile data usage.

The mobile data per active user figure per month was 0.2GB in 2012, rising to 2.2GB in 2018. No accurate data is available for use of Over the Top (OTT) services such as Skype, WhatsApp, Apple's iMessage and Facebook Messenger. Little is also known about live chat options on business websites or in-game chat options.

Ofcom wished to conduct in-depth consumer and micro-business market research to understand more about the drivers of these behaviour changes. A key concern was to ensure that the changes are not being caused by consumer detriment, or do not lead to it.

2.2 Overarching Research Objectives

Overall, this research study sought to understand:

- How and why is communications behaviour changing.
- Why the time spent on landline calls is declining.
- What if anything, people are doing instead. And what drives this choice.
- Whether any of these changes indicate or lead to consumer harm or detriment.

There was also a need to understand any distinctive and unique characteristics of different communications methods. A more detailed description of the specific objectives of this study may be found in Appendices 8.6, 8.7 and 8.8.

[5] See: Ofcom: Communications Market Report, 2019.

2.3 Research method

An in-depth qualitative method was used. This comprised a combination of individual, face-to-face interviews, paired interviews and triads.

Prior to meeting, we asked all consumer participants to fill in a 7-day diary. This was designed to capture usage frequency and time spent on communications devices. Our use of this diary for consumers was important: voice and non-voice interactions can be difficult to recall accurately. 'Screen-time' can also be under-estimated.

Micro-business decision-makers in our sample were asked to fill in a questionnaire. This covered their main communication methods with clients, customers and staff.

Copies of both exercises may be found in Appendices 8.4 and 8.5. The outputs are described in Section 3.2.

2.4 Sample selection

Our research sample comprised a total of 52 consumers and 12 micro-business decision-makers. The consumer sample was a full representation of UK adults, aged 16+. We used gender, life-stage and socio-economic status as the main sampling variables. The micro-business sample comprised owners or directors of companies. These employed between 2 and 10 staff. A good range of business models and sectors was achieved. See Appendix 8.3 for a detailed breakdown of the consumer and micro-business samples achieved.

We also ensured that consumer and business participants were drawn from urban and rural locations in England, Wales, Scotland and Northern Ireland. Finally, the samples were made more inclusive by representing people with different abilities and people who were in a vulnerable or potentially vulnerable situation.

The fieldwork was conducted in September 2019.

3. Context

3.1 Introduction

In this section, we describe the main outputs of the 7-day usage diary completed by consumers in the sample and the main methods of communication reported to us by micro-business decision-makers[6]. In this, we cover voice usage, talk time, messaging, use of live-chat and patterns of sending emails and letters or cards.

3.2 Key patterns of communications usage among consumers

Number of voice calls

The pattern of responses from the 7-day diary indicates a relatively very low level of landline voice calling. This was evident across all age groups and was particularly the case among younger participants.

By comparison, mobile voice calling was considerably higher. It was also higher for other devices (like a tablet, laptop or desktop PC) particularly when used in conjunction with video calling.

Total voice calls (from any device, including landline) were similar in number for younger people and older. However, while younger participants tended to make as many calls as their older counterparts, the proportion of these calls via other devices (i.e., not just via mobile) was higher.

Voice talk-time

A similar pattern was evident in terms of talk-time, with the number of minutes spent talking on a landline being low in comparison to talk-time on a mobile phone and other devices.

[6] A copy of the 7-day diary and micro-business questionnaire can be found in Appendices 7.4 and 7.5. The patterns we describe must be treated as indicative and not conclusive evidence. They are based on a relatively small qualitative sample size and must not be considered to be statistically significant as they might be in a large-scale quantitative survey.

Excluding in-game chat, voice talk-time from any device (i.e., landline, mobile, tablet, etc.) was similar across all age groups. Younger participants spent as much time talking as their older counterparts, although the devices they used differed.

Typically, older[7] people spent more time talking on their mobile phone and landline compared to their younger counterparts. When making calls, younger people split the time more evenly across mobile and other electronic devices, like a tablet or laptop.

Working age participants, particularly those working full time, talked for longer on a landline in their work environment. This was because they often had a landline phone on their desk (or near their workstation), making it convenient to use. In addition, for many it was company policy to use a landline – to make and receive landline calls on behalf of their business.

When in-game chat is included, it is clear that younger people (particularly male teens), spend more time talking than any other age group. Although not all younger people play games online, those who do, claim to do so mainly for social reasons, helping to strengthen bonds with fellow players, on and offline.

Instant Messaging and SMS texting

The indications are that SMS texting and particularly internet-based Instant Messaging apps (like WhatsApp, Facebook Messenger) are, in many circumstances, preferred alternatives to voice calling. Across the sample, the volume of texts and messages sent and received is far in excess of the number of voice calls.

Volumes, particularly of Instant Messages, are particularly high among younger people, compared to their older counterparts. Indications from our sessions suggest that messaging for younger people has a major social and entertainment function. Whilst it does not take the place of voice, Instant Messaging in particular substantially reduces the need for voice calls and the length of voice talk-time.

By contrast, messaging is lower in volume for older people. From our sessions, the indications are that messaging serves more of a functional than a social purpose.

[7] Throughout this report, we refer to 'older' people typically as 65+. We refer to 'younger' people typically as 16-24.

Email and the sending of letters and cards through the post

Across the sample, email was very often seen as a separate, work or study-oriented medium rather than a substitute for SMS text or Instant Messaging. Email was also more strongly related to laptops and desktop PC, given the benefits of being able to attach files when there was a need to share or transfer 'signed' documents.

For this reason, email was most strongly prevalent among working age people, with email being a major part of communication in a work context. Emails were, by contrast, much less prevalent among older people (particularly retirees) and some younger people, particularly if not working in an office environment or in full or part-time study.

Sending letters or cards through the post was very minimal across the sample. Many younger people claimed not to communicate in this way at all. Some older, particularly the oldest in the sample, and females in mid-life age groups, would send written correspondence and cards on special occasions (i.e., birthdays, Christmas, weddings, etc.). Also, some younger women, in different ethnic cultures valued written correspondence highly as a way to show respect to their elders.

3.3 Differences among micro-business decision-makers

The research included micro-businesses from different sectors and with different business models. For the most part, micro-business decision-makers were very different to consumers, because they used multiple channels to communicate with their staff and for incoming and outgoing communications with their clients or customers.

Some relied on traditional telephony, but most did not. Instead, many said they were promoting and making increased use of mobile, email and voice and video OTT apps and platforms, e.g., WhatsApp, Facetime, Skype, on mobile and other devices, i.e., laptops and desktop PCs.

Face-to-face communication and particularly use of landline telephony and postal services were viewed widely as becoming less important. For some in the micro-business sample, landline telephony was not used at all.

For others, Voice over IP (VoIP) was viewed often as a cheaper, more productive and more functional alternative to landlines, because it enables local number identity in other locations ('out of area use'), conferencing and the use of headsets, enabling more effective multi-tasking.

4. Why is landline calling in decline?

4.1 Introduction

In this chapter, we summarise the main factors that have contributed to a decline in landline voice usage. We also describe what we identify as actual or potential harm or detriment without access to a landline.

4.2 Key reasons for the decline in landline calling among consumers

In summary, the key reasons for decline among residential consumers were as follows:

- Major migration to mobile and OTT platforms.
- Low cost / affordability of mobile services.
- Sheer ease, convenience and access to mobile as a personal device.
- Fast, efficient access to contact lists, precluding the need, in most cases, to 'dial' or remember a number when using a mobile phone.
- High levels of confidence in reliability, service continuity and availability of mobile and OTT communication technology.
- Ease, convenience and socially-rewarding access to high quality communication and interaction, via video calling, group chat and feature-rich OTT messaging communication.
- Widespread mobile-to-mobile connectivity.

By comparison, landline calling was seen and described by many as:

- 'Outdated'.
- Poor in features and functionality.
- Limited and inefficient in use, i.e., in a fixed location.
- Lacking privacy (it normally being a shared rather than personal device)
- Poor value in relation to cost (and use).
- Off-putting, given widespread experience of nuisance calls.

"If you think of what you can do on a smartphone, there is no comparison."

[Male, 48, Older family, Suburban, England]

The positive features and benefits of mobile and OTT communication, listed above, were strongly voiced across the sample including many consumers in the older age category (65+). Despite usage of landline being higher in this older age group, reliance on a landline was driven more strongly by habit than by real need / dependence. Many older people claimed that they could and would migrate to mobile if they had to.

Lack of perceived call cost transparency and nuisance calls were mentioned by many as off-putting, but neither were the main reasons for not using a landline. Rather, the migration to mobile and OTT were the major forces at play.

"If it was all free, and you got rid of nuisance calls, I still wouldn't use it."

[Male, 40, Younger family, Suburban, Northern Ireland]

Call costs were claimed to be off-putting because, unlike many mobile contracts, landline contracts were considered to vary in relation to different tariffs, i.e., daytime, weekday, weekend only, etc. This was felt by some to be confusing, leading to uncertainty (if ever they were to use a landline) regarding billing/call costs, particularly with chargeable numbers. In this, there was widespread confusion and uncertainty regarding actual costs of calling 03, 08, 09 and 118 numbers.

"I honestly don't know what the different numbers cost, but I don't need to know."

[Female, 42, Younger family, Rural, Scotland]

Many also claimed to have negative associations with landlines because of nuisance calls, given that the frequency of receiving them on a landline was typically much higher than on a mobile.

Overall, despite these concerns and sources of confusion, most in the sample consistently maintained that their landline use would **not** increase if calls were free or nuisance calls were eradicated.

4.3 Key reasons for the decline in landline calling – micro-business

The rate of decline among micro-businesses (and of landline use at home for work purposes) was found to vary for different kinds of businesses. Half of the twelve business people randomly sampled made very little or no use of landline voice at all. For some in the other half, landline played a role but was not promoted. For others, landline played a central role.

The main reasons for decline among non-users and non-promoters were as follows:

- Email, text and, in some cases OTT communication, were variously easier, quicker, more efficient, engaging, less intrusive.
- Less importance to clients or customers, in terms of reassurance (that the company is well-established) or knowledge of where the company is based (via the location identity of the area code).
- Some businesses preferred using mobile phones because they wanted to be able to change business premises easily, without having to change their phone number.

"We keep the landline going, and put it out there as a reassurance for some of our older customers. Younger people are much more responsive to mobile and [IM]."

[Stage school, Urban, Wales]

Landline usage remained central to some micro-businesses who trade partly online and partly physically and to some classic 'bricks and mortar' outfits. Variously, this was for the following reasons:

- It was their main channel for incoming calls.
- Some had poor mobile reception (mostly in deep rural locations).
- Landline numbers were felt to add to the perceived status of the business, suggesting to customers that their organisation was permanent / well-established.
- The area code of landline numbers had the perceived benefit of location identity.
- Landline calling limited communication to office hours.
- Landline systems facilitated internal voice communication and incoming calls management.

4.4 Potential for harm or detriment without access to a landline

Among consumers, despite the degree of migration to mobile and typically strong preference to use mobile, many participants felt that landline voice remains very important to a few in society. People thought there was the potential for harm or detriment to occur to some people if they no longer had access to landlines. These few in society were:

- Reported to us as being people around 85+ years old[8] who had no willingness or ability to use a mobile phone (and certainly no digital skills with which to use other devices like a tablet or PC).
- Some people, across all age groups in the sample, living in a mobile not-spot area[9].

In both of the above cases, a landline was a lifeline to the outside world. For the very older generation, people were reliant on a landline as their only means of access to a social network of friends. Also, it provided a means for others to monitor them.

[8] People in this category were described to us by some of the participants in this study (e.g. parents, friends, neighbours or people they cared for), i.e., none appeared themselves in our sample.

[9] One or two people living in mobile not-spot areas were less reliant on a landline having discovered Wi-Fi calling on their mobile. This said, awareness of this as a workaround was not widespread.

Accordingly, if people in this group lost access to their landline, this could lead to consumer detriment.

Among **micro-businesses**, those in the sample who were currently reliant on a landline claimed that a sudden loss of landline communication would be detrimental to their business. This was because they were dependent on customers calling their landline number. However, with sufficient notice of any change, and in line with what was perceived to be a slow-paced shift to mobile numbers and OTT forms of communication, then detriment could be more easily avoided.

Note: For more information on the characteristics of these different people, please see the next section and our case study examples in Section 6.

5. What determines communication preferences?

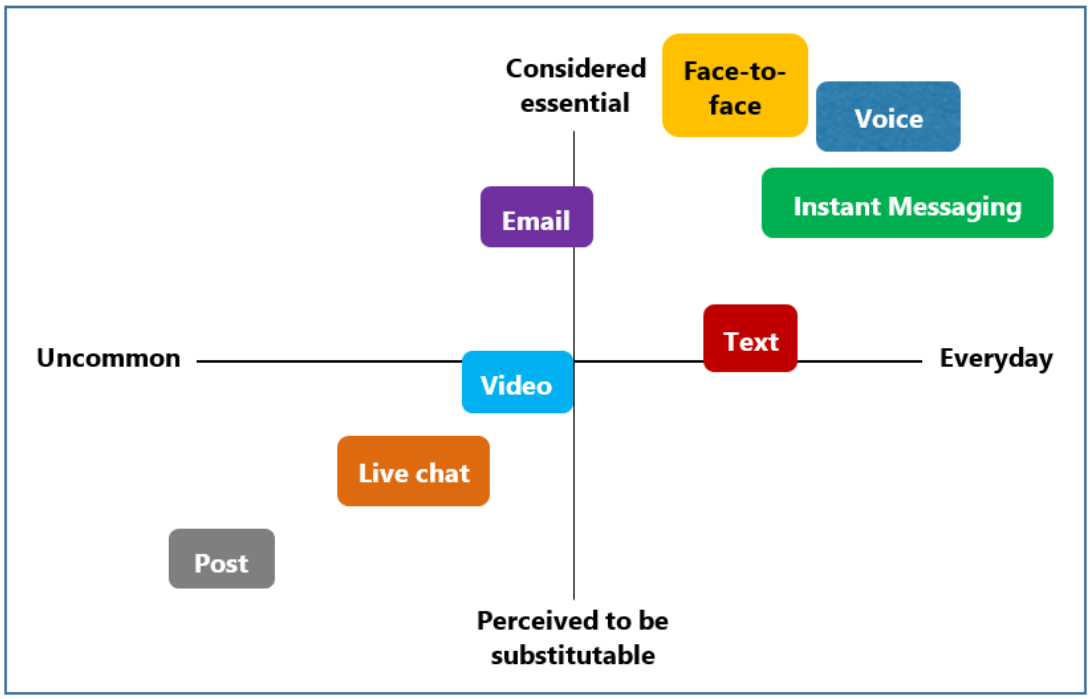
5.1 Introduction

In this chapter, we explore consumer and micro-business views on what influences their choice of particular devices, methods and platforms for communicating. We describe a range of generic factors that are common to most participants in the sample. We then draw out differences in terms of consumer and micro-business types.

5.2 Overview - factors that determine consumer communication preferences

Figure 3, overleaf, shows an overall mapping of preferences based on the majority of consumer participants in the sample. In the main, this indicates that, alongside face-to-face communication, voice (particularly via mobile) and messaging are most widely regarded as everyday essentials.

Figure 3: Mapping of essential everyday methods:



In summary, the key generic factors that determine or influence consumer choice of device, method or platform were found to be as follows:

- The need for **quality, depth and intimacy of interaction**, commonly associated with face-to-face and with mobile voice and video calling.
- The need for **ease, convenience and efficiency**, commonly associated with mobile as a device, and Instant Messaging, SMS text and live-chat as methods / platforms.
- The need for **social bonding, networking and entertainment**, commonly associated with mobile as a device and Instant Messaging, video calling, and in-game chat as methods / platforms.
- Perceived appropriateness in terms of **formal interaction**, commonly associated (by some) with a landline, business letters, email and live chat.

Note: the factors above are discussed in more detail in Section 6.

External factors

A number of external factors, largely beyond the control of participants, were considered by participants to mediate choice.

These were as follows:

Availability

Many participants stated that choice of device, method or platform could sometimes be dictated by availability. This meant, for example, being unable to make a mobile voice call or send a text in a not-spot area, or to make a video call with only limited data and without access to Wi-Fi. It also meant that mobile as a device was often considerably more available, given that, compared to a landline, a mobile was 'always with them'.

Availability was also determined (and increased or reduced) by awareness and use of workarounds.

A key example was Wi-Fi calling[10], which gave some participants the option of receiving calls at home and outside, in areas where there was little or no mobile phone signal reception.

One other factor was the perceived quality and reliability of a connection (be this via a mobile phone network, landline or internet-enabled voice or video call).

In some situations, particularly those regarded as important or formal, access to high quality[11] audio and integrity of connection was a factor in device and method chosen.

Compatibility

Considerations of which device, method or platform to use were also largely determined by compatibility. This meant, for example, that a contact list for a particular communication platform (like WhatsApp or Facebook Messenger) could determine choice of platform. There were exceptions to this, for instance where the same contact was on more than one platform.

[10] Please see Appendix 8.1 for a definition.

[11] Note: judgements about quality / reliability were often very subjective, and quite often determined by factors beyond their control, e.g., signal quality in their location, the signal quality in the caller's location – and even, possibly, the quality of the equipment (phone, earphones) they were using. As such, it is not possible to establish if any particular platforms were perceived to be more or less reliable.

It also meant that mobile was chosen most often as a device, given immediate, personal access to preferred communication methods and platforms.

Some people noted times when they had felt like they were missing out as a result of not having a particular app on their phone. This fear of missing out would often lead to them downloading the app to improve compatibility with their friends or family.

Note: One of the reasons given for why SMS text remains a staple, and has not been replaced by Instant Messaging, was its perceived universality, i.e., that texts could be sent to and received by any mobile device, as opposed to only those contacts who are signed up to a particular messaging platform.

Finally, we identified two additional factors that mediate choice, often subconsciously. These are as follows:

Profiling

Typically, participants' descriptions of what they actually do when communicating with different people or organisations revealed an underlying protocol or set of rules that largely dictated which device, method or platform they used.

This protocol was based mainly on a skilled, considerate and often tactful assessment of what worked best to reach a recipient. This may be based on a desire to reach the recipient quickly and unobtrusively, or another consideration. For many, the assessment had become largely subconscious given that most profiled choices were habitual and had been tried and tested.

A common example of this was a parent who chose Instant Messaging as their first port of call for communication with her daughter, given that (i) this increased the likelihood of an immediate response and (ii) use of a different method, i.e., texting, would not be responded to.

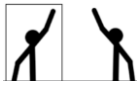
This same parent would make a landline call to their parent as the best way to get an answer, and video call her grandchildren, knowing that this would increase the quality of response and interaction.

Other examples were given by participants, across all age groups, that indicate that choices are sometimes based on etiquette, i.e., sending a text, instead of calling or Instant Messaging, when it is known that the recipient is working or otherwise busy.

"If I think about it, I choose text for a particular friend because I know she will respond to it. For others, it's best to call."

[Female, 48, Single, Rural, Scotland]

Mirroring



A second, largely sub-conscious factor, is mirroring. Again, based on participants' descriptions of what they do, the tendency is to choose a device, method or platform that 'matches' the sender or recipient.

Many stated that they had a natural tendency to do what another does, e.g., 'if someone texts me, then I will text them', and this then becomes the norm for future communication. Similarly, and particularly for platform choice, many expressed a need or desire to fall in with what 'most' others do and, for example, to join a WhatsApp group because that was what others had done.

"I WhatsApp call my friend, because he WhatsApp calls me. I wouldn't normally think to do it for others."

[Male, 18, Single, Student, Urban, Scotland]

Note: Mirroring does **not** relate to any active desire to achieve compatibility. It is a natural tendency instead to match what someone else does with an option that they already have access to. This is what we mean by mirroring, i.e., a sub-conscious decision to select an existing option that they already have and which someone else uses. To illustrate, our research included the following two scenarios that draw out the difference between the desire to achieve compatibility and mirroring:

1. Achieving compatibility: Theresa, aged 74, made limited use of a basic mobile phone, and then came to the view that the only way of reaching and staying close to her granddaughter was to get a smartphone and learn how to use WhatsApp.

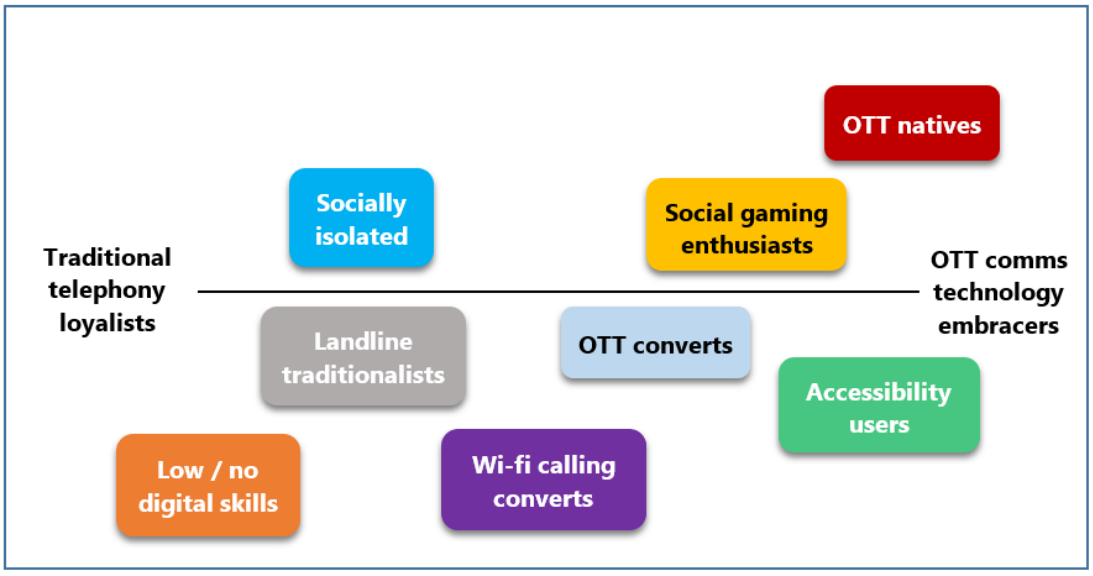
2. Mirroring: Max, 22, normally makes traditional network calls on his mobile. He also has the facility to make a call using WhatsApp, i.e., an OTT call, but rarely does so. Most of his friends call him on his network mobile and he calls them back on his network mobile. One particular friend calls him on WhatsApp. Instead of making a network call, he 'WhatsApp calls' this particular friend. When asked why, Max said that (i) he had never really thought about it, and (ii) when being asked to think about it, his best explanation is that he does what his friend does, i.e., his

friend calls him using WhatsApp and so, naturally (he supposed) he calls him back using WhatsApp.
Max went on to say that a WhatsApp call probably increases the chances of his friend answering, because it was his friend's preferred method, and it also set up an expectation that the call would be a sociable, 'fun' experience.
By the same token, Max thought that his friend might think differently if it was **not** a WhatsApp call, i.e., that in some sense it would be more serious or formal.

5.3 Key consumer 'types' identified

In this research, we identified eight different types of consumer, that varied in their position along a spectrum – from loyal, traditional telephony users to those who have embraced newer forms of OTT communications technology, as shown in Figure 4 below.

Figure 4: Eight distinct consumer 'types' identified in this study:



These types are described in detail in the next section, in the form of case studies, chosen to highlight what different participants consider to be unique about different devices, methods and platforms. In summary, the types towards the right of the spectrum above, claim that they have been 'pulled away' from traditional telephony and often feel heavily drawn to the perceived features, benefits, ease and rewards of OTT communications technology. This was evident across all age groups.

By the same token, the types toward the left of the spectrum claim to be happily wedded to traditional telephony. This was for a variety of reasons: (i) traditional telephony was profoundly familiar to them, (ii) many didn't recognise or value the benefits of OTT communications technology, and (iii) many didn't feel that they had the digital skills to make use of OTT communications technology.

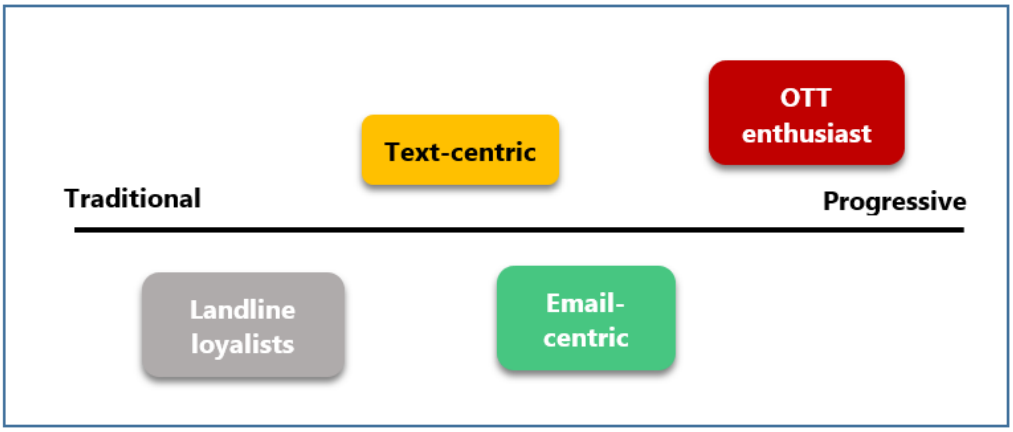
Landline traditionalists in particular, perceived traditional telephony in some ways to be superior, in terms of sound quality, reliability.

Another factor that created a preference for traditional telephony was the fact that they received landline calls from friends and relatives; often much more so than over other methods of communication.

5.4 Key micro-business 'types' identified

In our micro-business sample, we identified four different types. As with consumers, these types varied across a spectrum, again, from loyalty to traditional telephony to an enthusiasm for OTT communication technology. Figure 5, below, shows these types and their position along this spectrum.

Figure 5: Four distinct micro-business 'types' identified in this study:



Across this spectrum some businesses were motivated to change in some way by adopting newer and different forms of communication technology. Others were happy with traditional telephony.

The drivers in this tended to relate to need: among those seeking to change, many claimed they wanted to do so to (i) increase reach to new and existing customers and clients, (ii) increase speed, efficiency and productivity, and, in some instances, (iii) engage more deeply, and less obtrusively, by mirroring method(s) of communication that are used by their customers or clients.

> *"In this day and age, you have to communicate in the way that your customers communicate. That mostly means mobile and instant messaging."*
>
> [Hybrid business, Drama school, Urban, Wales]

Among those who were happy with traditional telephony, motivations tended to centre around the perceived importance of location identity and the perceived image (to customers) of being well-established (conveyed by a landline number). In some cases, traditional telephony was preferred because of the scope that a landline number provided to influence the timing of incoming calls.

6. What is unique about different communication devices, methods and platforms?

6.1 Introduction

In this chapter, we look at consumer views of what is unique about the devices, methods and platforms that they use. We provide case studies that focus on the perceived characteristics of each main method of communicating, i.e., face-to-face, voice (including in-game chat), Instant Messaging, texting, video calling, email, live chat and letters and cards through the post. Within each case study, we also describe the unique specifics of landlines for different types of people, in terms of use or non-use and the reasons given for that.

6.2 Face-to-face communication

Across the sample, face-to-face communication was regarded universally as fundamental; a unique, essential, basic and everyday need to meet, speak, socialise and engage with others in person. Unlike any other form of communication, face-to-face was regarded by most as the 'pinnacle' in terms of its benefits in bonding, intimacy, relating, understanding, development of trust and empathy.

"Face-to-face [is most important], of course, It goes without saying."

[Male, 34, Younger family, Rural, England]

For many, face-to-face contact was found to be easy to achieve with close friends, immediate family, neighbours and work colleagues, but required time and commitment for a wider, geographically disparate, network of friends, relatives and extended family.

"If all I had was face-to-face, I'd never see my grandkids in Australia."

[Female, 66, Retiree, Suburban, England]

For some, face-to-face required particular expense and/or effort. This was the case for those with very low incomes and low mobility or those who were socially isolated. Among low income participants, expense was a major barrier to travelling to see people face-to-face, particularly nationally and abroad.

Among those who were socially isolated, some either had an aversion to social interaction *per se*, or lacked a social network to interact with.

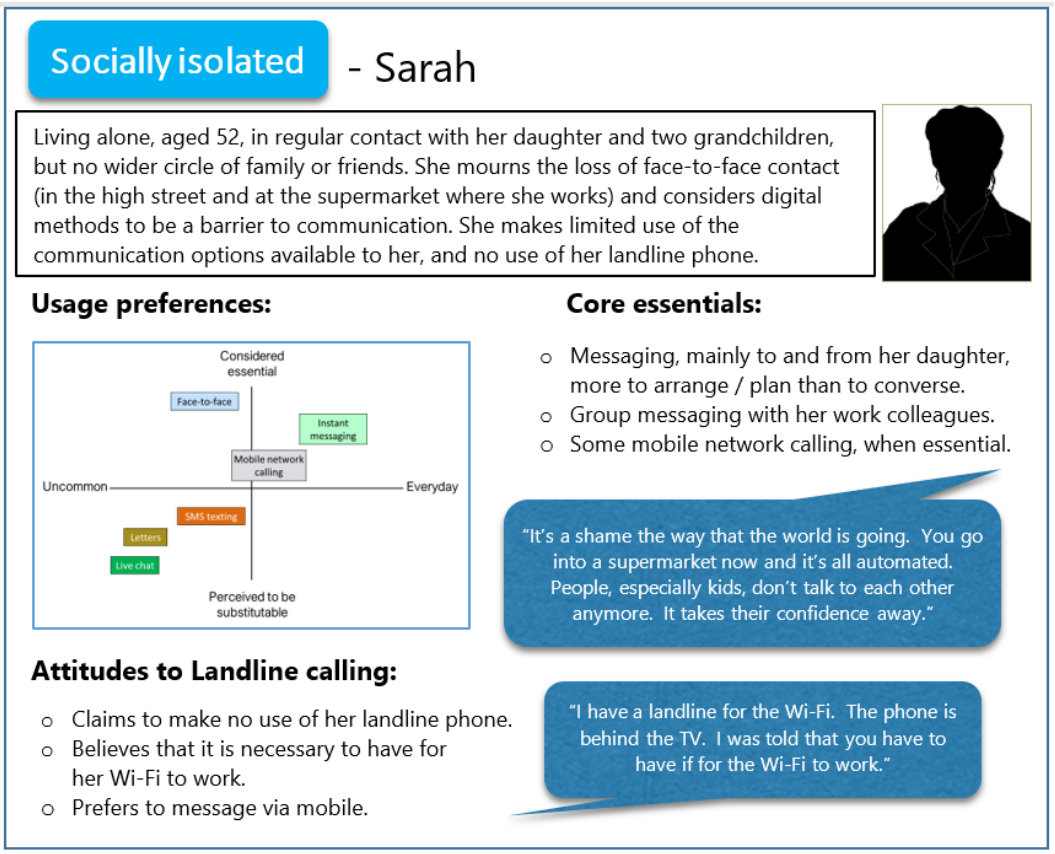
In one instance, communication technology was felt to serve well to avoid contact with others:

"My ex insists that we only communicate by email. It helps to avoid rows."

[Female, 33, Single parent, Rural, Somerset]

In other instances, technology in general (particularly online commerce) was felt to have reduced the opportunities to meet face-to-face, and that communication services were of limited use, given the low number of people they needed/wanted to interact with.

Figure 6: Consumer case study example of social isolation[12]:

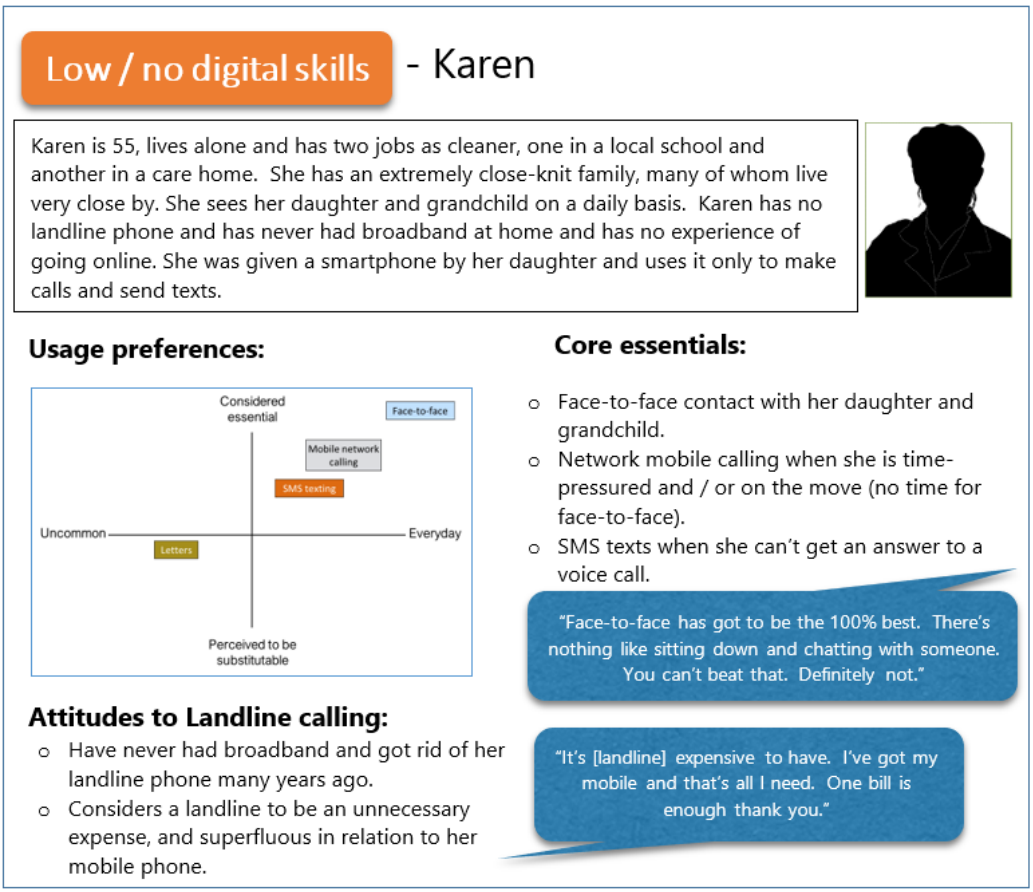


By contrast, some in the sample were strongly motivated by the benefits of face-to-face communication.

This was given a combination of easy face-to-face access to a close-knit social network of family and friends and very low motivation, need or skills to make use of communication technology, including a landline.

[12] Please note that all names used in this report are fictitious, in order preserve participant confidentiality.

Figure 7: Consumer case study example of low / limited digital skills:



6.3 Voice communication

Like face-to-face communication, voice communication was regarded universally as fundamental. It was seen, across the sample, as essential in itself, as a primary method of communication and means of contact, but also as a primary means to supplement, qualify and enrich message communication.

"I put voice alongside face-to-face as one of life's essentials."

[Male, 28, Partnered, Suburban, Wales]

Voice, for most, superseded messaging when there was a need to contact someone urgently, given the shorter time it was felt to take (compared to messaging) to explain something verbally, and ensure understanding. Many also made a point of saying that voice calling was normally for a reason, rather than a means of socialising.

Broadly, whilst many believed that opportunities for voice communication have increased, talk time was thought to have reduced somewhat overall. On the one hand, many had access to multiple alternative voice devices and platforms, e.g., mobile network calling, OTT voice calling, video calling, etc. On the other hand, choice of alternatives to voice were equally prolific, e.g., messaging, text, email, etc.

Overall, the predominant view was that voice calls, mainly via mobile networks, were frequent, but that the duration of these calls tended to be shorter. This was for the following reasons: (i) much of the context had already been established via messaging, (ii) more extensive use of voice could be viewed by many as inefficient, time-consuming and often difficult to control and exit from, and (iii) video calling, when used, offered a richer, more expressive and sociable alternative to voice calling.

> *"My daughter prefers me to text in the week because I go on for too long on the phone!"*
>
> [Female, 84, Widow, Urban, Scotland]

Some, particularly younger participants, believed that mobile network calling frequency had reduced only somewhat due to OTT calling (via WhatsApp, Messenger, Facetime, etc.). This was because, for many, mobile network calling was 'free' (i.e., they had unlimited minutes). It also felt more 'natural' to make a traditional mobile network call, rather than locate a contact on a separate OTT contact list on their phone.

Some who did make regular OTT calls, had started doing so at a time in the past when mobile network calling was felt to be more costly (i.e., when contracts had a limited number of minutes). Because of this, they had become accustomed to OTT calling, and had developed a larger list of OTT contacts on their phone. Now that 'free' mobile network calling was more widespread, some had reverted to using the mobile network.

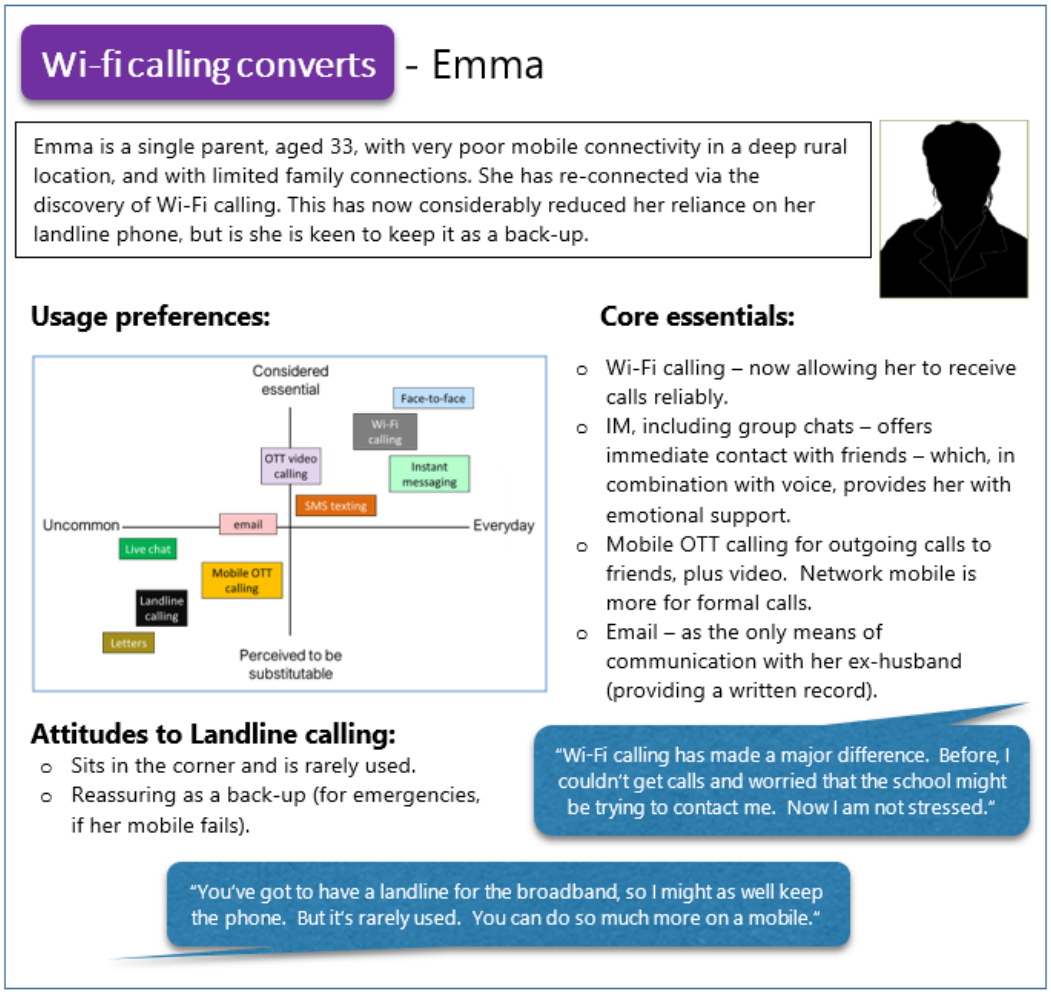
> *"I started WhatsApp calling in the early days, when my minutes were limited. Now, it's all unlimited, so I just find it easier to call on my mobile."*
>
> [Female, 37, Younger family, Rural, Northern Ireland]

The majority, particularly in older age groups, regarded traditional mobile calling as a more 'natural', familiar and habitual choice, without the need to think about whether a particular contact was in an OTT list on their phone.

The unique impact of specific voice apps and platforms on key sub-groups

Unique characteristics of two particular voice platforms have a substantial impact on certain sub-groups of people. The first of these was **Wi-Fi calling** making it possible to receive network calls (via Wi-Fi) in poor signal areas. This was not a feature that many people in the sample were aware of, even in not-spot areas. Emma, in Figure 8, overleaf, was an exception, having recently discovered Wi-Fi calling, after a long period of being unable to receive calls to her mobile.

Figure 8: Consumer case study example of a Wi-Fi calling convert

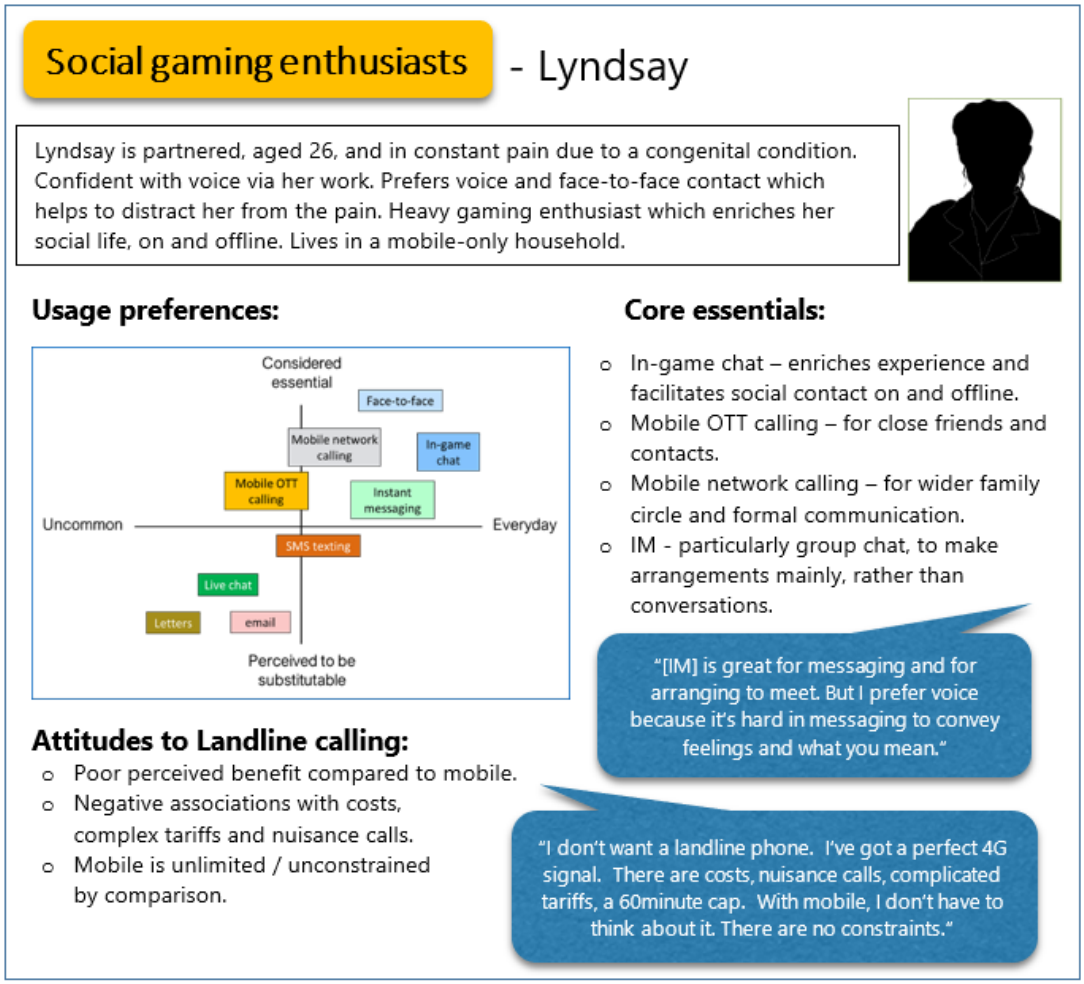


The second of these voice platforms, among mainly younger participants, was **in-game chat** (on a console or PC). This was claimed to be a major social accompaniment to game-playing; much more so than in-game messaging, or the use of voice or messaging via other devices during play.

In-game chat was felt by games enthusiasts to offer a unique benefit of facilitating social interaction both online (in close alignment with game-play) and offline when meeting and socialising in person. Some felt that online interaction enriched friendships offline in terms of bonding, empathy, self-confidence, cooperation and collaboration.

Specific aspects of communication during game-play, relating to strategy and teamwork, were also felt by some to contribute to cooperation and collaboration offline.

Figure 9: Consumer case study example of a social gaming enthusiast

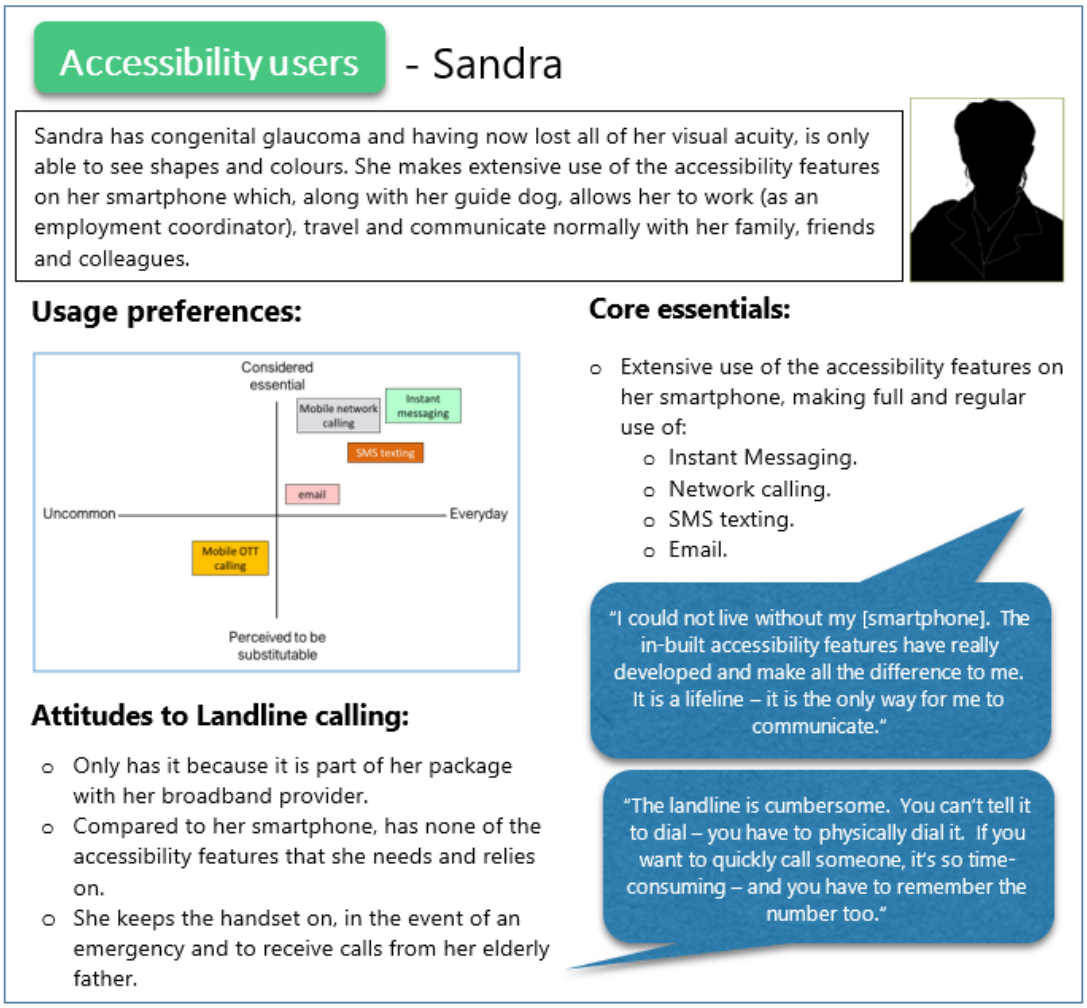


The unique impact of specific voice apps and platforms for people with a disability

Voice activation, particularly built into a smartphone, like Siri, was regarded as unique and indispensable by people in the sample with severe sight impairment and those with dexterity disabilities.

Typically, the impact was described a profoundly empowering, given access to features like voice-to-text conversion, text-to-voice conversion, text-image-reading, and computerised voice feedback that aided hyper-link search, access to contact lists, message reply, email transmission, etc. Voice-enablement, in this way, was felt to allow access to the full range of traditional mobile and OTT communication options, making it possible for accessibility users to communicate normally.

Figure 10: Consumer case study example of an accessibility user

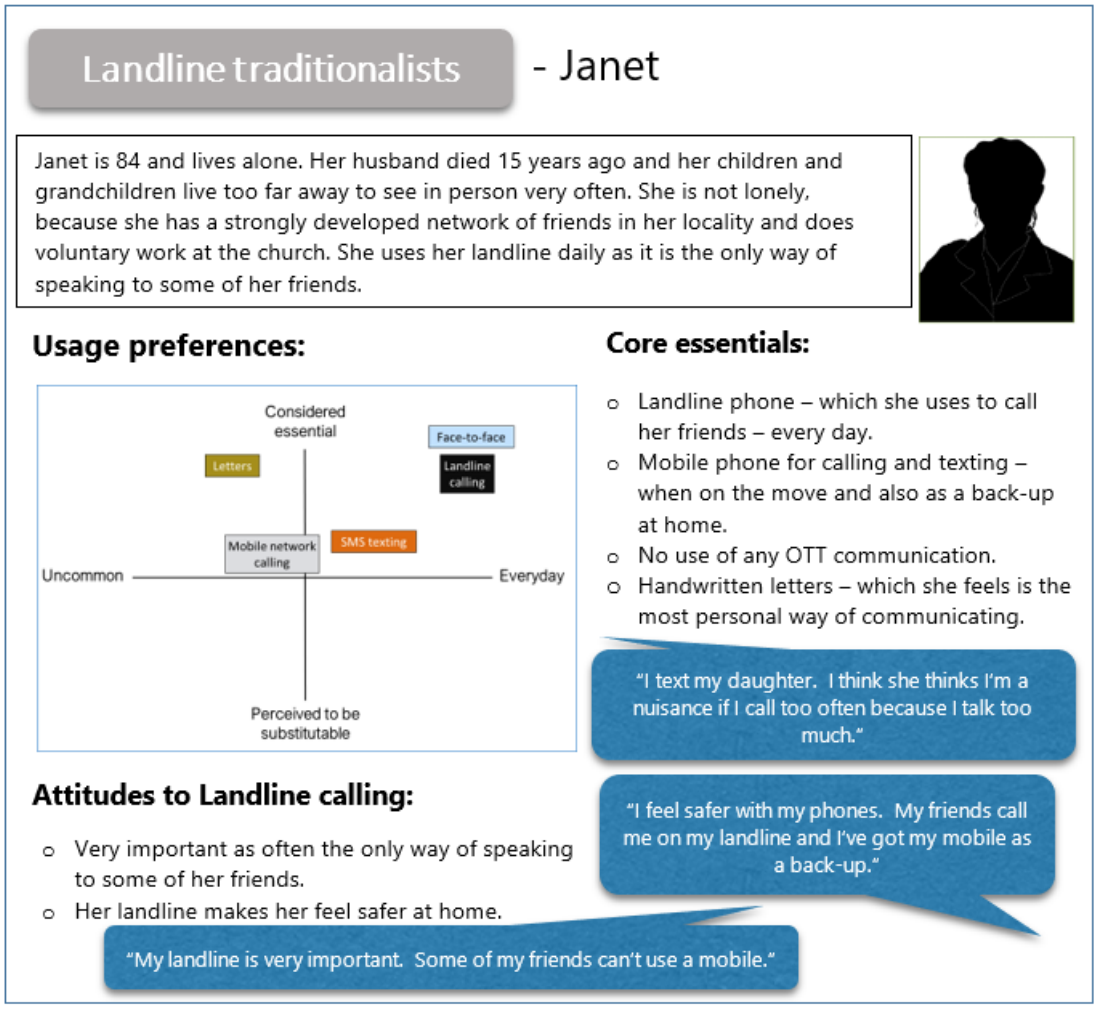


Unique aspects of traditional landline voice calling

In all of the above examples, landline calling played little if any role in people's lives. A key exception to this was a sub-group of older (70+) generation landline traditionalists who had a strong preference for landline use at home.

This was mainly to do with habit and familiarity, but also because many of their friends (of a similar age) shared a similar preference. This made their landline a primary device for receiving calls. Typically, these landline traditionalists also made use of a mobile phone, particularly when outside of the home. Some would also use other devices and methods of communication, like a tablet for video calling. Most claimed that they could migrate to mobile if they had to, i.e., they didn't wish to, but claimed that they would not be harmed if they had to.

Figure 11: Consumer case study example of a landline traditionalist



Note: the ability of landline traditionalists to migrate to mobile and to other communication devices, sets them apart from an even older age group, i.e., 85+, identified by participants in this research.

This latter sub-group said that they did not to have a mobile phone or any other communication device and were therefore entirely dependent on a landline for communication with the outside world.

Unique aspects of traditional landline for micro-businesses

Half of the twelve micro-business decision-makers in the sample made little or no use of landline voice. Among some, landline calling played a role but it was not strongly promoted. The landline was primarily kept as a channel for customers, clients and suppliers who were 'landline traditionalists' (see Section 5.3 above).

By contrast, a minority, were strongly reliant on landline use, as their main channel for communication, internally and externally.

Those reliant on landline had a strong desire to promote their landline number, as outlined in Section 4 above.

6.4 Instant Messaging

OTT communication in general, and particularly Instant Messaging, (via WhatsApp, Facebook Messenger, Instagram, Snapchat, etc.) was considered to be essential across much of the sample and a priority channel for communication. Usage was particularly heavy among younger consumers.

> *"I couldn't possibly live or function without it."*
>
> [Male, 19, Student, Urban, Northern Ireland]

Across the sample, usage was driven strongly by the fact that this was what their friends did, and was therefore considered to be the best way for them to connect socially with a wide group of people. This was via free access to a set of instant communication features, including group chat, audio and video calling, picture and video-clip sharing and recorded voice messages, as well as the benefit of knowing who is active.

These features and benefits were often so useful that an older generation claimed that they had adopted Instant Messaging in order to be included.

Once adopted, several older people – including some of the oldest – claimed to have embraced the medium positively and were now making routine use of it within their own social circles. It was, for many, an acceptance that 'this is what people do' and so therefore is 'what they must do' – leading to a belief that this is 'what they now want to do''.

"Unless it's an emergency, it's the only way I get to speak to my daughter."

[Female, 76, Retired, Rural, England]

"When I want to buy a new outfit, I will try it on in a shop and send a picture to my friend. And she can tell me how I look. It's wonderful."

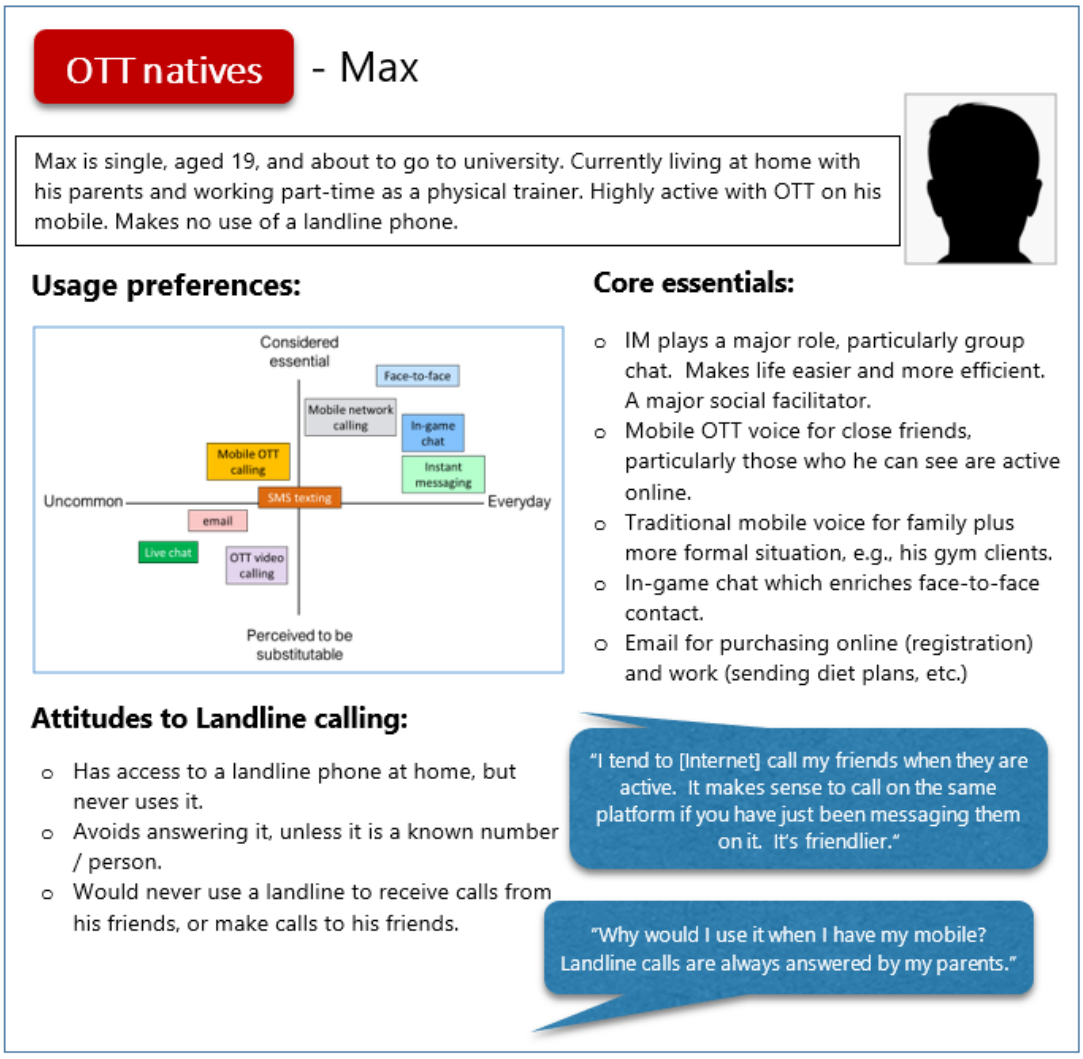
[Female, 67, Retired, Suburban, England]

As such, many believed that it had increased their communication with others, with messaging leading to more opportunities for voice and video-calling rather than less.

This was because messaging could prompt the need for calling, either to continue a conversation in a more developed way, or to clarify or qualify what had been said in message. However, calls tended to be shorter given that much of the context had already been established when messaging.

These patterns of use were very evident among 'OTT natives' and 'OTT converts' alike, as the following case studies describe.

Figure 12: Consumer case study example of an OTT native



In the above case study, Max believed that Instant Messaging has substantially facilitated bonds with friends in his social network, and made it possible to meet new friends at university before actually seeing or meeting them in person. In part, this was via Facebook Messenger's 'polling feature', that offered an engaging way for students online to vote for their favourite hall of residence. Polling was also used to decide, among his current friends, which date would work best for a party, making planning fun, easier and more efficient.

Different platforms were found to attract different profiles of people. This was attributed to 'mirroring' rather than the specific features on different platforms (i.e., the main reason given for choosing a particular platform was that '*many others I know are on there*').

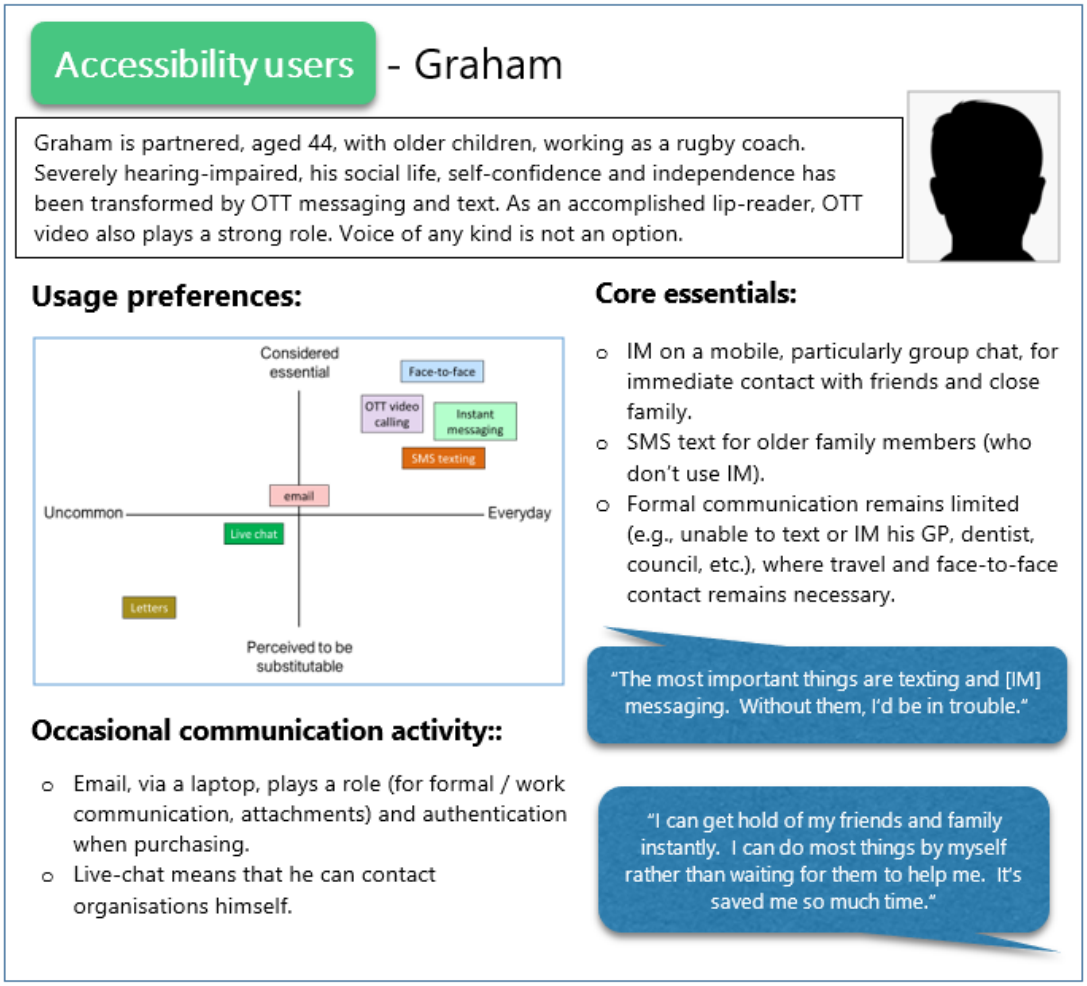
Broadly, in our sample, WhatsApp had the widest appeal across all age groups with a skew towards male, Instagram was skewed more strongly to female, Snapchat had a much younger (sub-18), female profile, and Messenger was skewed to older and was largely gender neutral.

Many of the youngest participants claimed that they were inclined to 'cross' the boundaries of platforms in order to reach and communicate with parents and other older family members (rather than include them in their preferred platform contact list).

Unique aspects of OTT communication for accessibility users

Instant Messaging was also viewed as a major positive among accessibility users, including video calling among some people with a severe hearing impairment, as the following case study evidences:

Figure 13: Consumer case study example of an accessibility user

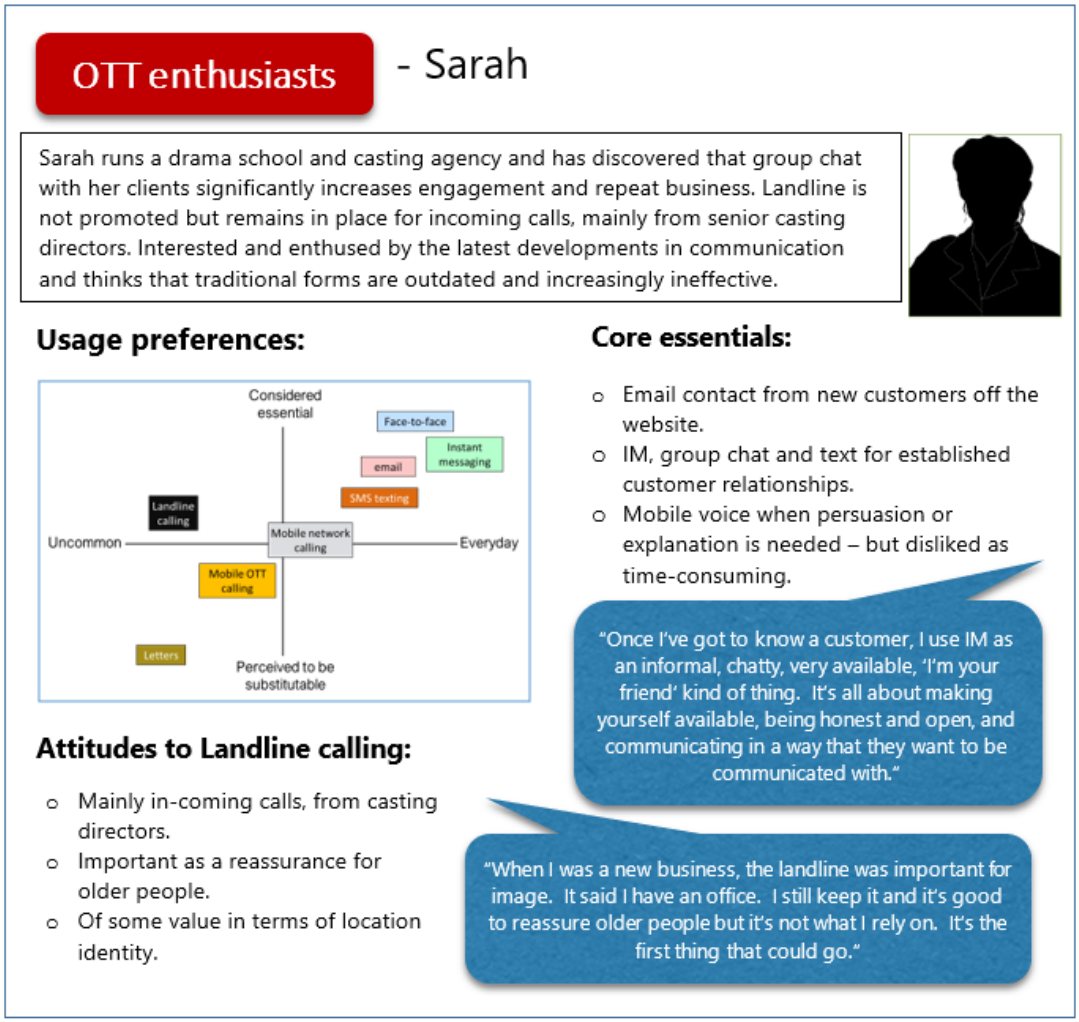


Unique aspects of OTT communication for micro-businesses

Finally, it was evident that some in our micro-business decision-maker sample had fully embraced Instant Messaging (mainly via mobile), and particularly group chat, as an effective communication channel with increasing numbers of clients and customers.

This was particularly evident among micro-businesses seeking to appeal to a younger generation, as the case study, overleaf, describes:

Figure 14: Micro-business case study example of an OTT enthusiast



In the above example, and among one or two other micro-businesses in our sample, it was clear that OTT communication, particularly mobile-to-mobile, was found to be an effective way of reaching and engaging with customers, once relationships had been established by formal means (i.e., via an email or voice call).

Typically, the main driver of this was 'mirroring', i.e., communicating in a way that customers naturally communicate themselves. This contrasted strongly with traditional telephony, as a channel that increasingly appealed to a more limited number of older customers.

6.5 Video calling

Using a mobile phone for video calling was dominant across the consumer sample given what were perceived to be unique features related to mobility (on the move and around the house), ease of showing and sharing things visually.

> *"I'll walk around the kitchen and so we are not always looking at each other. It's more that it feels like we are in the same room."*
>
> [Female, 33, Single parent, Rural, England]

Video calling on a tablet was more common among older participants, because it meant they had a larger screen. They preferred to hold conversations from a fixed location so the size of the tablet was not a barrier to using it. Among many of these older participants in the sample, video calling was a major driver for conversion to OTT communication technology in general. The perceived benefits of video in terms of free and enriched interaction with family members living elsewhere was the key spur to migration away from traditional telephony.

Video calling and conferencing among micro-businesses

Video and the use of 2 and 3+ way conferencing facilities (like Skype for Business, Zoom, Teams, etc.) on mobile, tablet or PC, was very limited in our micro-business sample. All but two made no use of this for business at all. These non-users did not reject the idea. Rather, it was simply that they felt they had no need. Of the two who did make use of video and conferencing, the main motivations were two-fold: to improve quality of communication, and to more effectively collaborate.

> *"I have a French supplier who I need to talk to now and again. It's weird but on the phone, I have difficulty understanding him. But on a video call, I understand him perfectly."*
>
> [Graphic design company, 2 staff, Suburban, Wales]

> *"We use Skype with our IT company because it saves a visit to us in person- and we can collaborate as team if there is a problem or we need to upgrade something. The IT guys can also show us things on screen which we can discuss and respond to."*
>
> [Web design company, 9 staff, Urban, Scotland]

6.6 SMS text

Nearly all across the sample claimed that they made use of SMS text. Typically, older consumers in the sample used it more than their younger counterparts.

Some, particularly younger, described it as 'outdated' and limited by comparison to Instant Messaging, as more 'basic' and much less richly featured and therefore best suited for 'straight', simple, short, direct and purposive communication. It was also viewed by some as less reliable in poor signal reception areas, with no confirmation that a message had been received.

> *"It's no frills, direct . . . to get something done or arranged."*
>
> [Female, 26, Partnered, Suburban, Scotland]

This said, SMS text was valued by most as a 'staple' part of their communication choices, given a number of benefits: (i) it was free and unlimited (for most), (ii) it was universal in its compatibility (i.e., it offered people the confidence that 'anyone' with a mobile phone could be reached, unlike Instant Messaging which required someone to be in their contact list), and (iii) it was non-intrusive, compared to voice.

> *"You can send [a] text to anyone, knowing that they will get it."*
>
> [Male, 44, Older family, Urban, Northern Ireland]

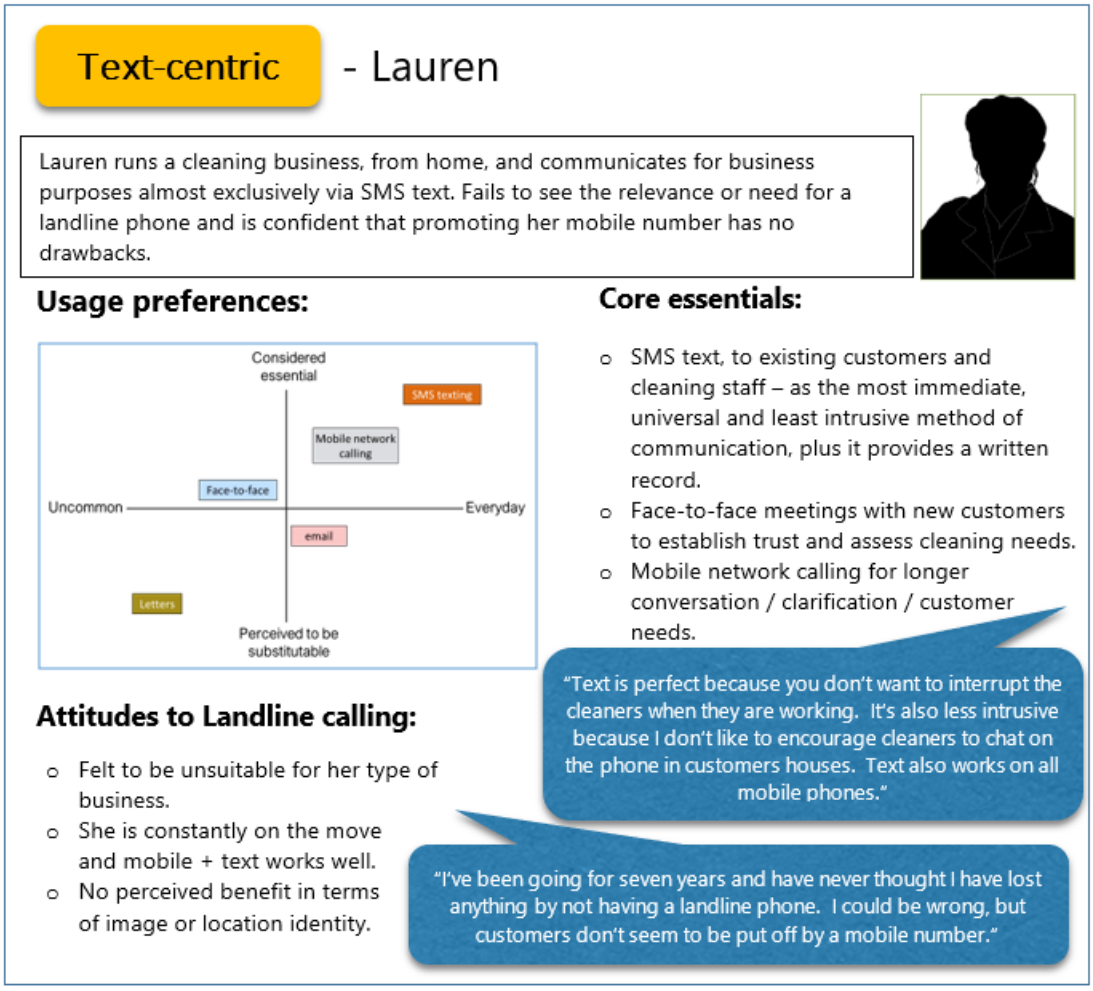
> *"It's the thing I turn to if I know they're not on WhatsApp, or when they have no data."*
>
> [Male, 18, Student, Urban, Scotland]

Unique aspects of SMS text for micro-businesses

SMS text was a dominant choice among one or two micro-business decision-makers in the sample. It was rarely used at all by landline loyalists, who, for the most part, considered text (along with Instant Messaging) as too informal a medium for business.

Among users, similar views applied to SMS text as they did to Instant Messaging, i.e., that it was a more direct and engaging medium that clients and customers responded to well, once relationships had been established.

Figure 15: Micro-business case study example of a text-centric business



Among non-users of SMS text, there tended to be a dislike of mobile in general, given that a business mobile number (i) offered no location identity, (ii) could convey that the business was not properly established, and (iii) was intrusive, with the risk of receiving incoming calls and texts outside of office hours.

6.7 Email

For many consumers in the sample, email was almost entirely work and / or study-related. Very few considered it to be an effective social medium.

For the most part, email was also more strongly associated with tablets and particularly PCs, and less so with mobile.

> *"I think my friend would think it a bit weird if I emailed him. It's the sort of thing I use for work."*
>
> [Male, 19, Student, Suburban, Wales]

Rather, it was seen widely as a serious, formal medium, with unique qualities in terms of (i) providing a permanent written record, (ii) enabling easy, efficient transfer of documents and other types of file attachments, (iii) compatibility and certainty that others can receive it, and (iv) being able to communicate with others non-intrusively, i.e., a passive medium that the recipient can choose to respond to in their own time-frame.

Unlike Instant Messaging, email offered no automatic feedback on whether it was read or received, was 'too passive' for some, given limited scope for dialogue in real-time, and was often seen as too formal a medium for humour or irony.

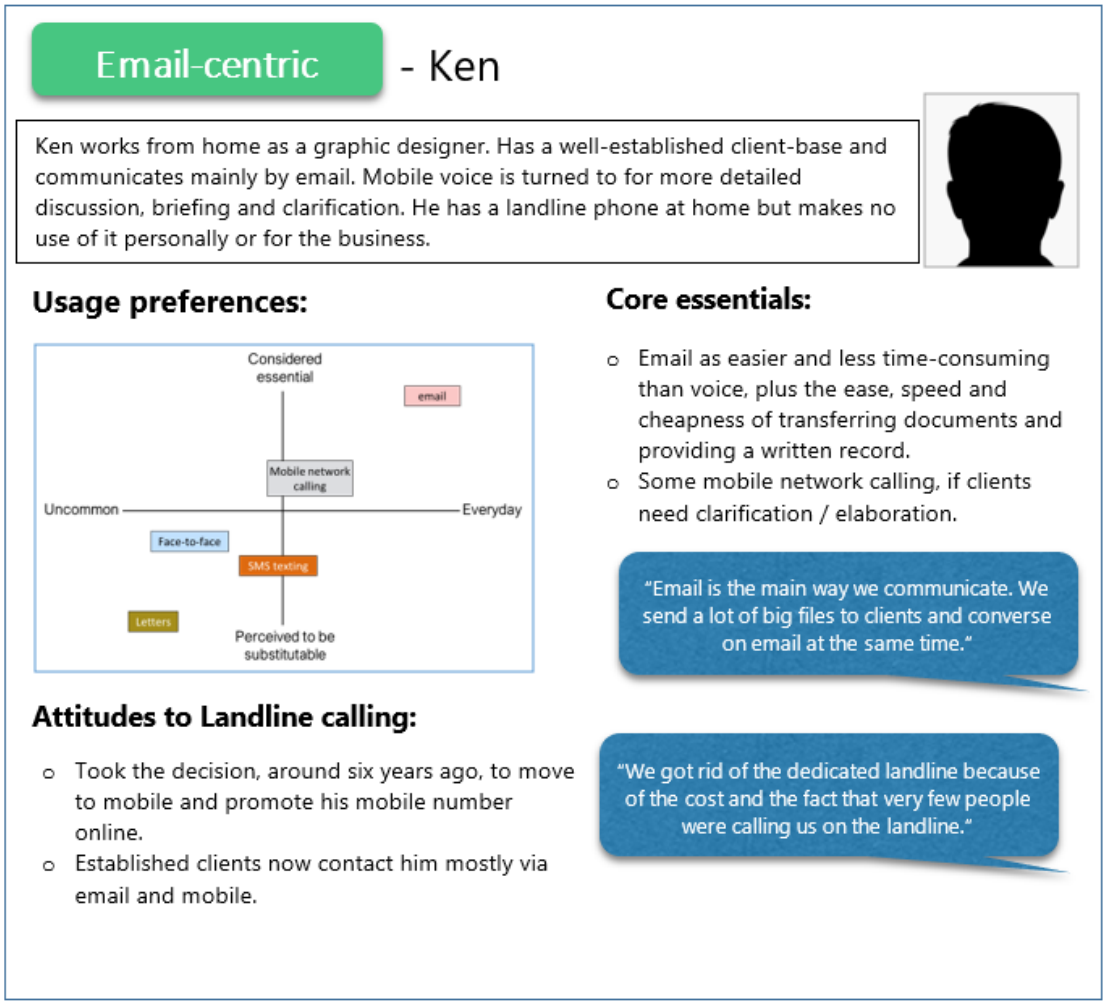
> *"[Instant Messaging] is social and designed for that. Email doesn't have all the bells and whistles that [IM]'s got."*
>
> [Male, 58, Empty nester, Suburban, Wales]

Unique aspects of email for micro-businesses

By contrast to most consumers, many micro-business decision-makers preferred to use email to communicate. Most claimed that they and their business could not function without it.

In many ways, email was regarded as their de-facto method, with major benefits in terms of speed, efficiency and low cost, radically reducing the need for voice communication and / or the need to travel and meet face-to-face.

Figure 16: Micro-business case study example of an e-mail centric business



6.8 Live chat

Awareness and use of real-time, text-based communication with organisations was not well-established across the sample. Appeal and relevance tended to be concentrated among the more time-pressured digitally savvy (typically younger). Compared to calling, it was seen as potentially quicker and easier. An additional advantage was access to a written transcript.

"Quicker, easier. I'm used to messaging and so this is similar."

[Female, 26, Single, Suburban, England]

When considered, many (particularly older people) claimed to prefer traditional calling, despite the likely prospect of being held in a queue. Most preferred to stay with the method that they were most familiar with. This also meant that they had limited experience of live-chat. Many did not recall seeing it on websites that they had visited.

A few, who had tried live-chat, were positive about speed and efficiency, but some complained that it could take as long as calling when waiting for an agent to respond. Others, who had no experience, claimed that they preferred to speak to a person, given the perceived benefits of dialogue and greater understanding, plus, in some instances, more scope for negotiation or persuasion.

"My habit is to pick up the phone. I don't think to look or check if they have . . . what's it called again?"

[Male, 64, Empty nester, Suburban, Scotland]

6.9 Letters and cards through post

The response to sending letters and cards clearly indicates a major decline, particularly for personal written correspondence and the sending of cards on special occasions.

Some in the sample, particularly in the older generation and heavily skewed to female, claimed that they would send personal mail. Many others – particularly the youngest in the sample, and males, claimed that they very rarely, if ever, did so.

"No. Not anymore. I might send a card to my nan at Christmas, but not to my friends."

[Female, 22, Single, Urban, England]

"Wedding invitations. I'd always send those."

[Female, 35, Partnered, Rural, Wales]

An exception among some younger people, particularly female, was evident in certain ethnic minority groups who claimed that written correspondence, particularly to their elders, was important and valued.

7. The response to possible future scenarios

7.1 Introduction

Towards the end of our sessions, we showed participants a range of possible future scenarios. Their responses to these gave us additional insight into how participants might change their ways of communicating in future. The actual wording of each scenario is shown in boxes in each of the sub-sections below.

7.2 Migration to 4G / 5G broadband

> ***Imagine 4G or 5G instead of home broadband***
>
> *Some providers (e.g., Three broadband) are offering 4G or 5G home broadband as a replacement for the wired broadband connection most people have currently.*

This was potentially interesting to some, particularly to those living in isolated areas where fixed broadband was poor and 4G access was very good. There were two instances of this in our sample, one in a rural area of Somerset and the other in a rural area of Scotland. The latter had already taken up a 4G broadband hub, which was found to make a major difference to the quality of internet access in their home.

Many others, in areas where fixed broadband was very good, questioned what the value of migration to 4G / 5G would be. Most felt it was hard to judge without knowing its cost and reliability.

4G / 5G was not considered to be acceptable to gaming enthusiasts, given a belief (mistaken or otherwise) that the speed and latency of a hard-wire connection was more reliable (despite the greater speed of 5G).

7.3 Take up of landlines if not needed for broadband

> ***Imagine access to broadband without the need for a landline***
>
> *Some providers (e.g., Virgin) don't require you to have a landline for broadband. Imagine in the future that your provider doesn't require you to have a landline.*

This was positive to many in principle, given the expectation of a cost-saving.

This tended to be bolstered, when considered, by a strong degree of resentment that they pay for a landline that they do not use.

In line with this, residential non-landline voice users in particular claimed that they would happily ditch their landline if it was not a requirement for their fixed broadband.

7.4 Access to fast, reliable internet access, wherever you are

> ***Imagine fast, reliable internet access, wherever you are***
>
> *Imagine if, across the UK, wherever you are, you could get reliable access to a good mobile signal and high-speed broadband.*

In general, this was a major positive, across the sample and particularly among those living and working in poor signal areas. The major impact, if this was to be the case, was consistently described as more use of mobile and OTT communication via mobile. This said, many living and working in areas where signal quality was good, felt that this was what they had already (at least adequately enough).

7.5 Eradication of nuisance calls

> ***Imagine a future with no more nuisance calls***
>
> *Imagine if telephone service providers had a process that could authenticate UK calls as being genuine, thus helping to combat nuisance calls and scams.*

The idea of being free from nuisance calls was definitely welcomed by many. This was the case among landline voice users in particular.

Many non-landline users were positive but consistently maintained that nuisance calling was not the main reason for their lack of use of a landline. As such, eradication was not considered to have any impact on future use.

7.6 Abolition of all communications costs

Imagine if all communications were free

Imagine if all communications were free, including all voice calls from your landline or mobile, no matter what number you were calling or what time of day.

The abolition of all voice calling costs was also welcomed, and particularly so among current landline voice users. This was because, for most, call costs were associated with landline use rather than mobile phone use. For the majority of residential consumers in the sample who made little, if any, use of the landline home phone, the impact of removing call costs was considered to be minimal. This was because their reasons for lack of use were not cost-related.

7.7 Take up of hologram calls

Imagine making hologram calls

The technology for hologram calls now exists in prototype form. This is where a 3D image of the person you are speaking with is projected into the room.

This idea was intriguing to many, with a high degree of interest in trying or at least seeing how it works. At the same time, the idea was considered too 'advanced' for some, given that it was not perceived to be an established alternative. Existing solutions, like video calling, felt more 'tangible', sufficient and acceptable by comparison.

7.8 Communicating in a virtual space

Imagine communicating in a virtual space

Headsets which allow us to enter a virtual reality are becoming more affordable and the technology is improving rapidly. These may allow you to communicate with people by meeting them in a virtual space.

Most interest in this scenario was evident among game players, particularly those with experience of headsets. By contrast, there was limited interest among many others, given a need to wear a headset.

This was felt to be 'cumbersome' and, in some cases, a 'gimmick'. In addition, it was felt widely that less intrusive and more accessible alternatives were already available, i.e., video-calling.

8. Appendices

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8.1 Terms used in this report and their definitions

When reading this report, a number of key definitions should be kept in mind, as follows:

Accessibility users: a range of people with different abilities given sight, hearing, mobility or dexterity impairments. These were mostly towards the severe end of the spectrum. All were making use of the accessibility features on a smartphone and other communication devices.

Communication methods: By methods, mean different ways to communicate, i.e., via voice calling, video calling, instant messaging, texting or emailing.

Communication platform: A platform is a base upon which a set of communication methods are run or implemented. An example of a platform is WhatsApp, or Facebook messenger, which hosts a range of communication methods, i.e., voice, video and Instant messaging in the form of a single app or application.

Hybrid businesses: micro-businesses who trade partly online and partly physically.

In-game communication: This is messaging through a gaming app on a mobile phone or during play on a games console (e.g., Xbox), tablet, laptop or desktop computer. The game app itself offers the facility to chat to other players during a game.

Internet-based Instant Messaging (IM): Apps like WhatsApp, Facebook Messenger, iMessage, Snapchat, Direct messaging in Twitter, etc., that allow people to send messages, images, and video clips to contacts over the Internet via Wi-Fi or via the data provided as part of their mobile network service. People will often access these apps on their mobile phone, but may need or prefer to use their laptop, tablet or desktop PC in addition or instead.

Internet-based voice or video calling: Services such as Skype, FaceTime, WhatsApp, and various conference apps (e.g., Zoom) that work via a mobile network service or Wi-Fi across the internet. These services can be used across a wide range of devices, i.e., mobile but also laptop, tablet, desktop computer, or connected / Smart TV via Wi-Fi.

Landline users: people who make use of a landline for making and/or receiving calls. For the consumers, this was a home-phone attached to a landline installed in their home. Some consumers also had access to and made use of a landline phone at home for work purposes and / or their work place. Having a landline installed so that they could connect to broadband but without a way to make or receive calls (e.g., no phone apparatus connected or inaccessible apparatus) did not count as landline call usage.

Live chat: This is real-time typed communication (on a mobile, laptop, tablet or desktop computer), which can be used to interact with an organisation online (e.g. by going to their website and clicking 'chat with us now' or 'can we help?'). Chat, via text, of this kind, is typically with a live person.

Low / limited digital skills: People with low or no confidence in making use of technology and only limited use of a feature phone or smartphone for making network calls and SMS text.

Mobile network calling: Traditional voice calling using the Mobile Service Network that the owner subscribed to (e.g., Vodafone, O2, EE, Giff Gaff, Tesco Mobile, etc).

Mobile network text messaging: Sometimes referred to as SMS messages, this is traditional texting using the Mobile Service Network that the owner subscribes to.

Mobile users: owners and regular users of a mobile phone, including both contract and prepay (PAYG) users. Some were using mobile for **both** personal and work purposes.

Online business: micro-businesses who trade primarily online, as opposed to a classic 'bricks and mortar' enterprise.

Over-the-Top (OTT) communication: Communication apps and platforms (voice, instant messaging, video) that are delivered via an internet connection rather than through a traditional telephony network.

Physical business: 'bricks and mortar' businesses who trade on a face-to-face basis.

Potentially Financially Vulnerable: People, primarily between the ages of 35 and 54, in C2D socio-economic groups, employed (not on benefits) though likely to be working part-time rather than full-time. These are people who have a lot of demands on them and not enough income to meet all of their own and their family's needs. They are just about managing, and are vulnerable financially if their circumstances were to suddenly change (e.g., losing their job).

Socially isolated: People across all age-groups with limited or extremely limited contact with society. Isolation can be experienced by people at any age and the symptoms may differ by age. Common facets of isolation include staying at home for lengthy periods of time, having no communication with family or friends and / or seeking to avoid contact when opportunities for contact arise.

Sole-traders & Small office Home office (SoHo): Within the consumer sample, sole-traders and employees who work at home or work on a flexi-time basis, typically making use of mobile and landline telephony for business and not just private or residential purposes.

Very low income: People with a total weekly household income that ranges from less than £190 to £510. Most were not in paid employment or, if they were, it was part time and poorly paid. All claimed that they had difficulty making ends meet, and struggled to find money for anything other than the basic essentials.

Voice over Internet Protocol (VoIP): Voice communication that is sent digitally, using the same broadband network that is already used for the internet and bypassing traditional landlines.

Wi-Fi calling: This is a service offered by Mobile Network Operators (MNO) and, when enabled, allows a user to make and receive calls via a Wi-Fi connection in instances when there is very limited or no access to a cellular network. Not all MNOs offer the service and not all mobile phones are Wi-Fi calling enabled.

8.2 A note on interpretation, analysis and reporting of qualitative data

It is important to note that the findings of this report are not statistically representative of the views of the general public. Qualitative research is designed to be illustrative, detailed and exploratory and provides insight into the perceptions, feelings and behaviours of people rather than conclusions drawn from a robust, quantifiably valid sample.

8.3 Final sample achieved

Figure 17, below, shows the final consumer sample achieved, and Figure 18, overleaf, shows the final micro-business sample achieved.

Figure 17: Final consumer sample achieved:

		Total	England	Wales	Scotland	Northern Ireland
		n	n	n	n	n
		52	20	10	12	10
Gender:	Male	25	9	6	6	4
	Female	27	11	4	6	6
Age:	16-18	10	3	2	3	2
	19-21	4	2	1	0	1
	22-29	5	2	0	2	1
	30-40	5	3	1	0	1
	41-54	9	3	3	2	1
	55-64	8	2	1	3	2
	65-74	6	2	2	1	1
	75+	5	3	0	1	1
Life-stage:	Single	15	5	3	3	4
	Partnered / no children	3	2	0	1	0
	Younger family	8	3	2	2	1
	Older family	6	2	0	3	1
	Empty nester	9	3	3	1	2
	Retiree	11	5	2	2	2
SEG:	ABC1	28	14	5	4	5
	C2	12	4	3	2	3
	DE	12	2	2	6	2
Specific vulnerabilities:	Low / limited digital skills	4	1	1	1	1
	Socially isolated	4	0	2	1	1
	Very low income / Financially vulnerable	4	1	1	1	1
Specific disabilities:	Sight impairment	3	1	1	1	0
	Hearing impairment	3	1	1	0	1
	Dexterity / mobility impairment	2	0	1	0	1
Location:	Urban	18	7	3	5	3
	Suburban	15	6	3	3	3
	Semi-rural	10	4	2	2	2
	Deep rural	9	3	2	2	2

Figure 18: Final micro-business sample achieved:

		Total	England	Wales	Scotland	Northern Ireland
		n	n	n	n	n
		12	4	3	2	3
Micro-businesses:	Mainly online	4	1	1	1	1
	Hybrid	5	2	1	1	1
	Physical	3	1	1	0	1

A more detailed breakdown of the micro-business sample is shown in Figure 19 below:

Figure 19: Final micro-business sample breakdown:

Channel	Main method:	Sector / service	Number of staff	Location	Premises	Use of landline voice:
Hybrid	Email	Ice-cream maker & retailer	2	Rural	Home	Frequently
Hybrid	Landline:	Sportswear retailer	5	Urban	Warehouse & offices	Frequently
Physical	Landline	Restaurant & B&B	3	Semi-rural	Dedicated premises	Frequently
Hybrid	IM:	Drama school & casting agency	4	Urban	School and offices	Occasionally
Online	Email	Publishing	7	Rural	Home	Occasionally
Online	IM:	Dress-making	2	Urban	Home	Occasionally
Online	Email	Web design	9	Urban	Offices	Rarely
Online	Email	Graphic design	2	Suburban	Home	None
Hybrid	Email	Art gallery and online art sales	3	Urban	Showroom and offices	None
Physical	SMS text:	Cleaning agency	7	Semi-rural	Home	None
Hybrid	Multi-channel	Mortgage broker	2	Urban	Offices	None
Physical	Mobile	Car body shop	2	Rural	Dedicated premises	None

8.4 – 7-day communications diary pre-task - consumers

How did you communicate today?

Thank you for agreeing to take part.

We are conducting this project on behalf of Ofcom, the independent regulator for the communications market, which protects the interests of consumers.

The aim of this homework task is to understand what services you use to communicate with others over a period of one week.

Overleaf, is a single page diary for each day. At the end of each day, please fill in the diary to tell us how you communicate with friends, family and other people for personal reasons and anything work-related. Don't forget to include any contact you have had with organisations (e.g., your bank, your electricity company, the council, ticket agencies, sales companies, etc.) and for any reason (e.g., to seek advice, make a complaint, purchase something, etc.).

Please try your best to fill the diary in at the end of each day, so that the record is accurate as possible. If you leave it for longer than a day, you may forget what you did.

To help with accuracy, you might want to look at records such as your call logs on your mobile or your email sent items to help you remember if you make a lot of calls / send a lot of messages.

For written messages (text message, instant messengers, etc.) we are interested in whether it was a "quick chat" – sending couple of messages to and from (e.g., sending a text message to confirm a time to meet) or a longer "conversation" which took more than a few minutes of your time (e.g., having a lengthy debate with on a family WhatsApp group)

Please be sure to bring this completed diary along to the session. Thank you.

Your first name: _____

Firstly, please tell us about all the <u>voice or video calls</u> you have made and received today (if any), including any calls that are work-related. If it's a lot and you aren't sure exactly how many and for how long then please make a best guess.

Remember: you might have used a landline, mobile, tablet, computer, games console, or other devices such as Alexa. Please try to remember all of them!

	Number of calls		Total talk time (in mins)
	Made	**Received**	
Landline (your home phone)			
Traditional Mobile Calls (made, using minutes or credit, and received to your mobile number)			
Other video / audio voice services, on any device (e.g., WhatsApp / FaceTime / Skype, etc.) on any device (mobile, laptop, tablet, etc.)			
In-game voice chat (when playing games online)			

Now, can you tell us about the other ways you have communicated with people today (except chatting with them face-to-face), including anything work-related:

	Approx. number of "quick chats"	Approx. number of longer "conversations"
Mobile phone text message / SMS		
Instant messages (e.g. WhatsApp / Snapchat / Facebook / iMessage)		
Live chat (i.e., with an organisation through their website or an app in real-time)		
In-game messaging		

	Number sent	Number received
Email (work or personal)		
Letters / postcards		

Thinking about all the times you've contacted people today, which device have you spent most time on?				And who did you contact today?	
Landline				**Close family**	
Mobile				**Extended family**	
Computer / laptop / tablet				**Friends**	
Other (please specify)				**Organisations / call centres**	
				Work colleagues / clients	

8.5 Communications usage pre-task – micro-business owners

Please tell us about your communications set up for your business

Thank you for agreeing to take part.

We are conducting this project on behalf of Ofcom, the independent regulator for the communications market, which protects the interests of consumers and small businesses.

The aim of this homework task is, before we meet, to understand a little about the communications set up for your business. By this we mean what devices you use and what methods of communication you rely on when contacting customers / clients and suppliers, and how these people contact you and your staff.

It is also interesting to know how you and your staff communicate with each other – and it would be **great if you can find out from them what they do**.

Overleaf, are some questions on these topics. Please be good enough to fill this in before we meet.

Thank you.

Your name: _____

Firstly, please tell us about all the different ways that you and your staff communicate (with each other) and with others outside of the business:

Q1. What is the <u>main</u> method of communicating . . .

PLEASE SELECT <u>ONE PER COLUMN</u>

	. . . between you and your staff?	**. . . when customers / clients contact your business?**	**. . . when you / your staff contact customers / clients?**	**. . . between members of your staff?**
Face-to-face	[ ]	[ ]	[ ]	[ ]
Calling via a landline phone	[ ]	[ ]	[ ]	[ ]
Calling via a managed VOIP / cloud-based phone	[ ]	[ ]	[ ]	[ ]
Calling via a traditional Mobile (Using minutes or credit)	[ ]	[ ]	[ ]	[ ]
Calling via other video / audio voice services (e.g., WhatsApp / FaceTime / Skype, etc.) on any device (mobile, laptop, tablet, etc.)	[ ]	[ ]	[ ]	[ ]
Online meeting / conferencing tools, e.g., Zoom, Slack, Join Me, Teams, Skype for Business	[ ]	[ ]	[ ]	[ ]
Email	[ ]	[ ]	[ ]	[ ]
Mobile phone text message / SMS	[ ]	[ ]	[ ]	[ ]
Letters through the post	[ ]	[ ]	[ ]	[ ]
Instant messages (e.g. WhatsApp / Snapchat / Facebook / iMessage)	[ ]	[ ]	[ ]	[ ]
Live chat (i.e., with your organisation through your website or an app in real-time)	[ ]	[ ]	[ ]	[ ]
Any **other** method of communicating (not described above) **Please specify:** _____	[ ]	[ ]	[ ]	[ ]

Q2. And which, if any, of these <u>other</u> methods of communicating are used in your business nowadays:

PLEASE SELECT <u>ALL THAT APPLY</u> IN <u>EACH COLUMN</u>

	. . . between you and your staff?	**. . . when customers / clients contact your business?**	**. . . when you / your staff contact customers / clients?**	**. . . between members of your staff?**
Face-to-face	[ ]	[ ]	[ ]	[ ]
Calling via a landline phone	[ ]	[ ]	[ ]	[ ]
Calling via a managed VOIP / cloud-based phone	[ ]	[ ]	[ ]	[ ]
Calling via a traditional Mobile (Using minutes or credit)	[ ]	[ ]	[ ]	[ ]
Calling via other video / audio voice services (e.g., WhatsApp / FaceTime / Skype, etc.) on any device (mobile, laptop, tablet, etc.)	[ ]	[ ]	[ ]	[ ]
Online meeting / conferencing tools, e.g., Zoom, Slack, Join Me, Teams, Skype for Business	[ ]	[ ]	[ ]	[ ]
Email	[ ]	[ ]	[ ]	[ ]
Mobile phone text message / SMS	[ ]	[ ]	[ ]	[ ]
Letters through the post	[ ]	[ ]	[ ]	[ ]
Instant messages (e.g. WhatsApp / Snapchat / Facebook / iMessage)	[ ]	[ ]	[ ]	[ ]
Live chat (i.e., with your organisation through your website or an app in real-time)	[ ]	[ ]	[ ]	[ ]
Any **other** method of communicating (not described above) **Please specify:** _____	[ ]	[ ]	[ ]	[ ]

Q3. And which, if any, of the following methods in your business are <u>never</u> used . . .

PLEASE SELECT <u>ALL THAT APPLY</u> IN <u>EACH COLUMN</u>

	. . . between you and your staff?	**. . . when customers / clients contact your business?**	**. . . when you / your staff contact customers / clients?**	**. . . between members of your staff?**
Face-to-face	[ ]	[ ]	[ ]	[ ]
Calling via a landline phone	[ ]	[ ]	[ ]	[ ]
Calling via a managed VOIP / cloud-based phone	[ ]	[ ]	[ ]	[ ]
Calling via a traditional Mobile (Using minutes or credit)	[ ]	[ ]	[ ]	[ ]
Calling via other video / audio voice services (e.g., WhatsApp / FaceTime / Skype, etc.) on any device (mobile, laptop, tablet, etc.)	[ ]	[ ]	[ ]	[ ]
Online meeting / conferencing tools, e.g., Zoom, Slack, Join Me, Teams, Skype for Business	[ ]	[ ]	[ ]	[ ]
Email	[ ]	[ ]	[ ]	[ ]
Mobile phone text message / SMS	[ ]	[ ]	[ ]	[ ]
Letters through the post	[ ]	[ ]	[ ]	[ ]
Instant messages (e.g. WhatsApp / Snapchat / Facebook / iMessage)	[ ]	[ ]	[ ]	[ ]
Live chat (i.e., with your organisation through your website or an app in real-time)	[ ]	[ ]	[ ]	[ ]
Any **other** method of communicating (not described above) **Please specify:** _____	[ ]	[ ]	[ ]	[ ]

Q4. In your business, what, if anything, has changed in usage and importance, communications-wise, over the past few years?
PLEASE SELECT ONE PER ROW

	More use / importance	Just the same use / importance	Less use / importance	Doesn't apply / have never used
Face-to-face	[ ]	[ ]	[ ]	[ ]
Calling via a landline phone	[ ]	[ ]	[ ]	[ ]
Calling via a managed VOIP / cloud-based phone	[ ]	[ ]	[ ]	[ ]
Calling via a traditional Mobile (Using minutes or credit)	[ ]	[ ]	[ ]	[ ]
Calling via other video / audio voice services (e.g., WhatsApp / FaceTime / Skype, etc.) on any device (mobile, laptop, tablet, etc.)	[ ]	[ ]	[ ]	[ ]
Online meeting / conferencing tools, e.g., Zoom, Slack, Join Me, Teams, Skype for Business	[ ]	[ ]	[ ]	[ ]
Email	[ ]	[ ]	[ ]	[ ]
Mobile phone text message / SMS	[ ]	[ ]	[ ]	[ ]
Letters through the post	[ ]	[ ]	[ ]	[ ]
Instant messages (e.g. WhatsApp / Snapchat / Facebook / iMessage)	[ ]	[ ]	[ ]	[ ]
Live chat (i.e., with your organisation through your website or an app in real-time)		[ ]		

Q5. To what extent, if at all, do you / your employees use each of the following types of conferencing facility (when more than 2 people dial into the call):

	Use a lot	**Use sometimes**	**Use rarely**	**Doesn't apply / have never used**
Conferencing using only mobiles or standard landline phones	[ ]	[ ]	[ ]	[ ]
Conferencing using mobiles or standard landline phones in conjunction with an internet-based service (e.g., Join Me, Teams, Zoom, Skype for Business)	[ ]	[ ]	[ ]	[ ]
Conferencing using only an internet-based service (e.g., Join Me, Teams, Zoom, Skype for Business)	[ ]	[ ]	[ ]	[ ]

One final question:

Q6. Which one of the following statements best applies?

PLEASE SELECT ONE ONLY

• All communications, incoming and outgoing, are handled by me	[ ]
• Some communications, incoming or outgoing, are handled by me and some by my staff	[ ]
• All communications, incoming and outgoing, are handled by my staff	[ ]

That's it. Many thanks.

We look forward to meeting you.

8.6 Detailed research objectives

The study was designed to address the following detailed specifics:

- How are people choosing to communicate with each other (face-to-face, voice, video, messaging, chat, email), etc.?
- Why is this changing?
- How do people prefer to make contact with different parties in different circumstances, and how do they actually make contact?
- What is their preference for **voice** calls (fixed, mobile, or OTT) **versus other methods** (text / SMS, email, instant messaging, live chat, in-game chat)?
    - What drives the decision (e.g., convenience, circumstances, cost, preferences of called party, reason for contact, etc.)?
    - What drives the decision about the device / method of contact to use?
    - What, if anything, is unique about the choice of device / method that is preferred / regularly used (landline, mobile, OTT)?
    - Has this changed over time? Why?
- When deciding to make a **voice** (or video) call, what do they take into account when choosing which device / connection type to use (landline, mobile, OTT, Wi-Fi calling, smart-home device)?
    - Convenience, default (how phone is set up / only device available), cost, mobile reception, call quality, privacy, security, etc.?
    - Are differences in call cost / package inclusion (for fixed or mobile) understood / considered? For apps, do they consider Wi-Fi or mobile data usage?
    - Reliance on a landline? Why?
    - For OTT (skype, FaceTime, WhatsApp, etc.) how do they decide between them? Any differences in quality?
    - Who is using OTT voice services and what OTT services are they using? Are they doing this instead of landline or network mobile calling? Do they typically use voice or video? Why?
    - Is there a need for Ofcom to be concerned about the decline in fixed (and possibly network mobile) calling? Why and how might this be a concern?

8.7 Qualitative consumer topic guide

DECLINING CALLS – CHANGING BEHAVIOUR
Consumer Topic Guide and materials – Main fieldwork
Final – 1st September 2019

Key topics

1. Our introduction (5 mins)

- Who we are, what we do and our independence
- Explain the 'journey' that they are embarking upon – what we will be doing and why
- Put them at ease: informal, no right or wrong, not a test, etc.
- Explain audio & video. Re-sign consent form

2. Participant introduction(s) (5 mins): first name, what they do, who is at home, interests, etc.

3. Warm-up- FOCUS ON COMMUNICATION

(5 mins):

Learning about their **home** environment, in terms of:

- Use of tech and devices to **communicate** with
- Location of (any) fixed communications (landline home phone, fixed broadband, smart TV, Desktop computer)
- Use of in home of mobile / portable devices for any kind of communication (mobile phone, tablet, laptop, virtual assistants, e.g., Alexa)
- Devices used individually versus shared
- How many communications devices are connected to the internet in the home? (via wired broadband, Wi-Fi, 3G / 4G /5G)

Check on use in a **work** location (if any), and when **on the move**

4. Develop discussion around their communication devices at home versus elsewhere (5 mins)

Focus on all devices and methods of communication (mobile, landline handset, laptop / tablet, gaming consoles, virtual assistants, etc.):

- General preferences / patterns of use
- Likes / dislikes / pain points
- User 'imagery' (e.g., what sort of person prefers this? What is it about them that makes them prefer to communicate this way?)

How preferences / patterns / likes / dislikes, etc., vary / **change** elsewhere:

- On the move
- In the workplace
- In a social setting / gathering

5. Touch on the theme of 'change' (5 mins)

Tell me what has changed, in terms of how you communicate? Think of what you do now compared to what you used to do

- A year or so ago? Why?
- 5-10 years ago? **(for older participants)** Why?

Drill down: what has changed at home, on the move, at work, etc.?

What, in particular, might change in the future? Why might it change?

6. Focus on main generic ways of communicating (unprompted) (10 mins)

Show cards one at a time, and ask participants for **spontaneous** first thoughts:
IMPORTANT: KEEP THIS HIGH LEVEL. We go into detail in section 7)

- Their **first**, immediate association (device, location, purpose, etc.)
- **Imagery** (positives / negatives)
- **When** chosen (when not) – versus what?
- **Why** chosen / preferred (Why not?)
- **What device** / method chosen (What not chosen?), in what situation? Why?
- **What specific method / platform** (OTT methods)? Why? Why not?
- **Where** used / preferred (where not)
- **Who / what used for**? (Who not used for?)
- **Value** / importance / benefit

7. Introduce expanded set of generic ways of communicating (in terms of devices and methods) (20 mins)

Conduct **sorting exercises**: asking them to sort the cards into different piles, using whatever 'rules' make sense to them

For each pile, explore the dimension used, i.e., what do we call the different piles? What is it that makes 'this' pile different to the 'this' one?

Encourage participants to repeat the exercise as many times as possible, to generate dimensions of difference in terms of their usage, purpose, feeling when using, use in different contexts / locations, and what **drives** the preference.

Ask participants to voice their thinking and prompt, if necessary, for the following:

- The location / where they are
- Where there is a signal / access to Wi-Fi
- Convenient vs inaccessible
- Familiarity / simplicity vs 'complicated / difficult to use
- High quality interaction vs poor / limited
- Short / quick chats versus deeper / longer conversations
- Group calling / group chats
- Visual / expressive vs verbal / textual
- Unique versus replaceable
- Price / free versus costly (how /in what way?)
- Compatible vs incompatible with other's devices / platforms (e.g., when using WhatsApp, the person you are calling needs to have it installed too)
- To avoid nuisance calling
- Suitability for particular purposes / people / types of conversation
- Privacy / sensitive, confidential
- Free calls, non-geographic calls (0800, 03)
- Intimate vs open / public
- Family important calls
- International calls
- Provides a record vs protects privacy
- Rewarding vs, a nuisance
- Fun / informal vs formal / authoritative
- Task-oriented vs open-ended pleasure
- Reliable vs insecure / unpredictable
- Guaranteed access to emergency services

8. Explore uniqueness / essential need for different methods of communicating (15 mins)

Refer to **cards** again and conduct **subtraction exercise. Explain:** If I were to take one of these away, meaning that it you could never use it again, which one would it be?

Explore reasoning for their choice:

- In what circumstances?
- Why they feel able to sacrifice it
- Why they find it difficult to sacrifice it; what would be lost
- What, if anything, they can do to compensate for the loss, with what's left on the table
- What might be needed from what's left on the table in terms of improvement
- How much of a loss is it? How detrimental would it be to lose it? Why?

REPEAT the exercise above, for each successive card, until only one is left

Revisit the subject of change:

Looking at the order of the things you have taken away, how might have this been different in the past? What might you have been less willing to sacrifice:

- A year or so ago? Why?
- 5-10 years ago? **(for older participants)** Why?

How might your choice be different in the future? Why?

9. Explore actual communication behaviour (10 mins)

Refer to DIARY (check first: How did they get on with this? Easy / difficult? Why?)

Then describe / present their usage data to them, focusing on key patterns, plus particular methods of communication that are not used at all

- **For devices / methods used a lot:** What makes them actually used the most? When? In what situations? Who with?
- **For devices / methods used occasionally:** Why are they used least? What stops you using them more often? When? In what situations? Who with?
- **For [unused methods**], what stops you using it?

CHECK: [If not already covered in section 3]: Do they have a landline into their house? And is a phone handset attached to it to send / receive calls? Why? Why not?

10. Reveal our specific interest in voice (10 mins)

Explain our specific interest in voice (fixed, mobile and OTT / Wi-Fi enabled), and summarise what has emerged from the discussion about this

Then ask for views at a considered level:

- Why has use of landlines declined?
- What (if anything) stops you / others from using voice more often (or at all)
- What specific aspects of voice are motivating / off-putting, vis-a-via:
  - Landline, Mobile network calls, OTT calling / video, Wi-Fi calling
- How reliant are they on each?

KEY QUESTION: Are people communicating less, *per se*? Or, are they using less landline/mobile voice because they are using online services (voice or video) or messaging instead? To what extent is voice substitutable? **CHECK:** Has there been a fall in communication overall, or do people communicate just as much and have simply switched modes? **CHECK:** is this different in different circumstances / when call different people or organisations? How? In what way?

Revisit change:

- How has this changed over the recent and more distant past?
- How might it change in the future?
- **What, if anything, would we lose**, if **landline calling** was lost altogether? What would you miss? What might other people miss?
- Ultimately, what is the potential for harm, if landline voice is lost altogether?

If not fully discussed already, focus on OTT voice applications:

- Do they use OTT calling / video (via Skype, Facetime, WhatsApp, Snapchat, etc.)?
- How do they decide between them? Any differences? What? Quality?
- Why? In what circumstances?
- What are the benefits (if any) compared to fixed and mobile network calling?
- Any drawbacks?

11. Focus on the future, via potential future scenarios (10 mins)

Refer to rotation schedule and show each Scenario separately, on a board **For each board**, **READ OUT** – AND ASK THEM TO WRITE DOWN THEIR THOUGHTS (prior to any discussion) PLUS A MARK OUT OF 10 IN TERMS OF APPEAL / DESIRABILITY

Overall, capture rank order in terms of preference / appeal individually (participant write-down)

Then, invite response at a spontaneous level to begin with, and then refer to specific probes on the back of each board

Thank and end

8.8 Qualitative micro-business topic guide

DECLINING CALLS – CHANGING BEHAVIOUR
Micro-business Topic Guide and materials – Main fieldwork
Final – 1st September 2019

Key topics
1. Our introduction (5 mins) • Who we are, what we do and our independence • Explain the 'journey' that they are embarking upon – what we will be doing and why • Put them at ease: informal, no right or wrong, not a test, etc. • Explain audio & video recording • Ask them to re-sign consent form
2. Participant introduction (5 mins): • Nature / type of business • Business model, plus customer / client profile • How they advertise / market their business and its contact details • Key challenges / opportunities • Main methods of communicating with their customers – incoming and outgoing
3. Warm-up – FOCUS ON COMMUNICATION (5 mins): Learning about their (and their staff's) **working** environment (at home, on the move, in the office), in terms of: • Use of tech and devices to **communicate** with • Location of (any) fixed communications (landline phones, fixed broadband, desktop computers) • Use / reliance on VoIP telephony (if any) • Use of mobile / portable devices for any kind of communication (mobile phone, tablet, laptop, virtual assistants, e.g., Alexa) • How many different types of communications devices are connected to the internet? (via wired broadband, Wi-Fi, 3G / 4G /5G) **IF they have separate work premises**, ask how their work environment is different / similar to their home environment, for communications

4. Develop discussion around their communication devices for their business (5 mins)

Focus on all devices and methods of communication (mobile, landline handset, laptop / tablet, etc.):

- General preferences / patterns of use
- Likes / dislikes / pain points
- Perceived importance
- User 'imagery' (from client / customer perspective) – **specifically advertising of landline versus mobile numbers**

How preferences / patterns / likes / dislikes, etc., vary / **change** elsewhere:

- On the move
- Working at home, from home, and in the workplace

5. Touch on the theme of 'change' (5 mins)

Tell me what has changed, in terms of how you communicate **in business**? Think of what you do now compared to what you used to do

- A year or so ago? What has caused this?
- 5-10 years ago? **(for older participants)** What has caused this?

What, in particular, might change in the future? Why might it change? How do you feel about that?

6. Focus on main generic ways of communicating in BUSINESS (unprompted) (10 mins)

IMPORTANT: KEEP THIS HIGH LEVEL. We go into detail in section 7)

Show cards one at a time, and ask participants for high level, **spontaneous** first thoughts:

- Their **first**, immediate association (device, location, purpose, etc.)
- **Imagery** (positives / negatives)
- **When** chosen (when not) – versus what?
- **Why** chosen / preferred (Why not?)
- **What device** / method chosen (What not chosen?), in what situation? Why?
- **What specific method / platform** (OTT methods)? Why? Why not?
- **Where** used / preferred (where not)
- **Who / what used for**? (Who not used for?)
- **Value** / importance / benefit

6a. Introduce expanded set of generic ways of communicating in BUSINESS (in terms of devices and methods) (15 mins)

Conduct **sorting exercises**: asking them to sort the cards into different piles, using whatever 'rules' make sense to them

For each pile, explore the dimension used, i.e., what do we call the different piles? What is it that makes 'this' pile different to the 'this' one?

Encourage participants to repeat the exercise as many times as possible, to generate dimensions of difference in terms of their usage, purpose, feeling when using, use in different contexts / locations, and what **drives** the preference.

Ask participants to voice their thinking and prompt, if necessary, for the following:

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- High quality interaction vs poor / limited
- Short / quick chats versus deeper / longer conversations
- Professional versus informal
- Group calling / group chats / conferencing
- Visual / expressive vs verbal / textual
- Unique versus replaceable
- Price / free versus costly (how /in what way?)
- Compatible vs incompatible with other's devices / platforms (e.g., when using WhatsApp, the person you are calling needs to have it installed too)
- To avoid nuisance calling
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- Free calls, non-geographic calls (0800, 03)
- Intimate vs open / public
- International calls
- Provides a record vs protects privacy
- Rewarding vs, a nuisance
- Fun / informal vs formal / authoritative
- Task-oriented vs open-ended pleasure
- Reliable vs insecure / unpredictable

- Guaranteed access to emergency services

6b. SHOW CONFERENCING ALTERNATIVES (3 mins)

Show conferencing alternatives board

- Which alternatives are they aware of / familiar with?
- Which, if any, do they make use of (regularly, occasionally, or rarely)?
- Whether used or not, what is their preference? Why?

7. Explore uniqueness / essential need for different methods of communicating (10 mins)

Refer to **cards** again and conduct **subtraction exercise. Explain:** If I were to take one of these away (from use in your business), meaning that it you could never use it again, which one would it be?

Explore reasoning for their choice:

- In what circumstances?
- Why they feel able to sacrifice it
- Why they find it difficult to sacrifice it
- What, if anything, they can do to compensate for the loss, with what's left on the table
- What might be needed from what's left on the table in terms of improvement
- How much of a loss is it? How detrimental would it be to lose it? Why?

REPEAT the exercise above, for each successive card, until only one is left

Revisit the subject of change:

Looking at the order of the things you have taken away, how might have this been different in the past? What might you have been less willing to sacrifice:

- A year or so ago? What drives this?
- 5-10 years ago? **(for older participants)** What drives this?

How might your choice be different in the future? Why?

8. Explore actual communication behaviour (5 mins)

Refer to homework, that encouraged them to think about their incoming and outgoing methods of communication

- **Main method(s) used for outgoing communication:** What makes them actually used the most? When? In what situations?
- **Main method(s)for incoming communication:** What makes them actually used the most? When? In what situations?
- **For unused methods**, what stops you using it?

- **For any <u>changes</u>** – what makes [method(s)] more used / important now? Why? What makes [method(s)] less used / important now? Why?

9. Reveal our specific interest in voice (10 mins)

Explain our specific interest in voice (fixed, mobile and OTT / Wi-Fi enabled), and summarise what has emerged from the discussion about this

Then ask for views at a considered level:

- Has voice declined in your BUSINESS? If so, why, if at all, has voice declined?
- What stops you / others from using voice for BUSINESS more often (or at all)
- What specific aspects of voice are motivating / off-putting, vis-a-via:
  - Landline, Mobile network calls, OTT calling / video / conferencing
- How reliant are they on each?

KEY QUESTION: Are people communicating less, *per se*? Or, are they using less landline / mobile voice because they are using online services (voice or video) or messaging instead? To what extent is voice substitutable? **CHECK:** Has there been a fall in communication overall, or do people communicate just as much and have simply switched modes?

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If not fully discussed already, focus on OTT voice applications:

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- How do they decide between them? Any differences? What? Quality?
- Why? In what circumstances?
- What are the benefits (if any) compared to fixed and mobile network calling?
- Any drawbacks?

10. Focus on the future, via potential future scenarios (10 mins)

Refer to rotation schedule and show each Scenario separately, on a board

For each board, **READ OUT** – AND ASK THEM TO WRITE DOWN THEIR THOUGHTS (prior to any discussion) PLUS A MARK OUT OF 10 IN TERMS OF APPEAL / DESIRABILITY

Overall, capture rank order in terms of preference / appeal individually (participant write-down)

Then, invite response at a spontaneous level to begin with, and then refer to specific probes on the back of each board

Thank and end.

8.9 Copy of participant consent form

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Taking part in research

Thank you for considering taking part in this research project, which is being conducted by Futuresight, on behalf of Ofcom.

The information we collect throughout this project will be kept anonymous and your confidentiality will be preserved. Your personal details will not be shared.

Futuresight will not give details of your identity to Ofcom or any third party. You can access our privacy notice on our website at: www.futuresight.co.uk (We will send you a paper copy of this notice on request).

You have the right to withdraw your consent to process the information you provide or object to our processing of your information. The research activity and this interview will be conducted in accordance with the Market Research Society Code of Conduct, and the information you provide will be treated in accordance with General Data Protection Regulation (GDPR).

If you agree to be in a video, it will be viewed by the Futuresight and Ofcom project team, for the purpose of analysing the comments all participants have made. Video and audio recordings and clips or stills may be used by Ofcom in-house publications and presentations, for the purposes of showing the results of our research. The video clips would be held by Futuresight and Ofcom for a maximum of 2 years, and then securely deleted.

If you have any questions about the way your personal information is handled, please feel free to ask a Futuresight researcher in person, or telephone or email us (see below).

Please tick each box if you agree

To take part:
I understand that my participation in this research project is voluntary and that I am free to withdraw at any time, without giving any reason. ☐

Audio recordings:
I give permission for the interview to be audio recorded. This is purely for our own internal purposes to help us accurately recall what you say. We will never share this recording with any third and, in any event, we will never ask you anything, in the interview that could personally identify you. ☐

Video recordings & live-streaming:
I give permission for video collected as part of the research project to be viewed by all members of the project teams at Futuresight and Ofcom. As with all other data, we never share these recordings or streaming with any third party and we do not include anything that could personally identify you ☐

I agree to take part in the above research project.

Name of Participant	Date	Signature