



Telecommunications
Industry
Ombudsman

TIO submission to the ACMA – Artificial Intelligence in communications and media December 2019

1 Introduction

I welcome the opportunity to contribute to this important conversation about Artificial Intelligence (AI) in the communications and media sector.

As my office continues to navigate a sustained period of significant change in the communications environment, we are dealing with and resolving the increasingly complex and varied consumer complaints that accompany advancements in technology and network capability, including AI applications.

With an increasing presence throughout the industry, AI must be carefully utilised to minimise any risks to consumers that may accompany the benefits to communications providers. Changes in the communications environment must be supported by an effective regulatory framework.

Where AI applications will engage with consumers for enquiries and complaint handling, it is important that their design accommodate the needs of all consumers – this means identifying the many different ways consumers use services and engage with service providers.

Some enquiries cannot be addressed without human interaction – effective AI delivers a positive consumer experience with clear pathways to a person where needed. This is particularly important for vulnerable consumer groups. My office already receives complaints from consumers who have experienced issues engaging with a service provider's AI applications and been unable to speak to a person.

Given the convergence between communications services, including digital platforms, this submission considers AI in our traditional remit as well as areas where our remit could extend. During this period of change, we will continue to evolve alongside changes in the communications environment to remain responsive and effective.

2 Artificial Intelligence and complaints – now and into the future

Technological advances continue to shape the communications landscape with consumers using increasingly sophisticated products delivered by an evolving network. AI is shaping up to be a significant driver of change for the telecommunications sector and is redefining many businesses as they transition to automation.

2.1 The evolving communications environment

While AI is currently used predominantly for ‘back of house’ applications in the communications sector, we have observed progress in the use of AI and anticipate that over time, we will increasingly see its use in consumer facing applications. Vodafone says two thirds of its customer contact in Italy is now handled by AI.¹

Irrespective of the applications used to perform business functions, service providers continue to have the same fundamental responsibilities to their consumers.

2.2 Telecommunications and digital platforms use AI

Telecommunications providers and digital platforms increasingly use AI for a range of applications including:

- consumer engagement – enquiries and complaint handling such as customer service, help, guidance and troubleshooting
- staff engagement – training
- network functions – network upgrades, network migration and predicting network traffic, and
- processing data – updating superseded plans, identifying fraud and responding to lost/stolen device enquiries.

Consumers already complain to us about being unable to reach a person to talk to about their issue, although often this is in the context of contacting us to complain about a digital platform.² They say they contacted the platform with an enquiry but were unable to talk with a person and ultimately contacted us when they felt they had nowhere else to go. These matters may foreshadow the types of complaints we see and will see about communications providers as they transition to using AI applications for consumer engagement.

The shift to AI applications handling consumer enquiries and complaints for telecommunications companies will represent a significant change in the industry. Regulation and consumer law will need to anticipate, navigate and accommodate these changes to effectively safeguard consumers.

¹ <https://www.vodafone.com/perspectives/blog/vodafone-launches-artificial-intelligence-framework>

² Complaints about digital platforms are currently outside the scope of the Telecommunications Industry Ombudsman scheme: <https://www.tio.com.au/sites/default/files/2019-10/TELECOMMUNICATIONS-INDUSTRY-OMBUDSMAN-TERMS-OF-FINAL-OCTOBER-2017.pdf>

2.3 AI applications will not effectively handle all enquiries

Consumers contact providers for many reasons and within these are small but significant differences. While straightforward matters such as account payments can be effectively handled by AI, some consumer interactions need individual consideration. Where individual handling is necessary, ensuring these more complex contacts are handled by a person will mean a greater chance of a relevant outcome and a positive consumer experience.

We have received complaints from consumers who told us they contacted their provider and their call was directed to an Interactive Voice Recording (IVR). These consumers say the IVR gave them assistance options, but they became 'stuck' in looping options and could not reach a person for assistance. Not being able to talk to a person can mean consumers who needed to request a payment extension or report a fault could experience service interruption or delays in fault repairs.

Regardless of whether a person or AI application handles and decides the outcome of a consumer complaint, we consider the contact an opportunity for the provider to consider the matter. If the consumer contacts us to make a complaint, we will consider the complaint is at the stage at which we may handle it, so long as it is something that fall within our Terms of Reference.³

Case study A – 'I'm in a message dance with a robot.'

A consumer called their provider to report a fault. The call was directed to an IVR and the consumer selected the option to report a fault. The consumer spent around an hour in an options loop before ending the call and contacting the provider via online chat. After waiting more than one and a half hours for assistance, the consumer answered questions as they were asked only to be asked earlier questions again. Frustrated, the consumer decided to disconnect the service and selected the option for disconnection. This directed the contact back to the queue to restart the process.

The consumer tried to contact the provider several more times before contacting us and asking if we could arrange to have the service disconnected. The consumer said, *'I can't get through to them. It seems as if I'm in a message dance with a robot. I have no idea if I was talking to a human or not.'*

2.4 Ineffective AI design can bring about complaints

Due to incomplete or non-inclusive design, AI design might not sufficiently consider unique or unexpected scenarios, which may lead to complaints. The example below is illustrative of where the design of AI can be detrimental to consumers.

We recently investigated multiple complaints from consumers who had applied for a new service with a provider. During the application process, the consumers agreed the provider could carry out a credit check. The consumers contacted us when multiple credit checks appeared on their credit file for the one application.

³ <https://www.tio.com.au/sites/default/files/2019-10/TELECOMMUNICATIONS-INDUSTRY-OMBUDSMAN-TERMS-OF-FINAL-OCTOBER-2017.pdf>

The provider told us it used AI to periodically check the connection applications in its system and this included completing a credit check. The provider said the system was not designed to handle delayed connection requests any differently from new connection requests, which meant consumers were subjected to repeat credit checks if their connection application was delayed.

The design oversight meant consumers experiencing connection delays of around a month could be further disadvantaged by additional, unnecessary credit checks on their credit file.

3 Future consumer safeguard opportunities and gaps

As AI extends further into consumer facing applications, an environment is emerging where communications enquiry and complaint-handling applications can include self-help, chat bots and complaint lodging and handling via online chat.

While these kinds of interactions can save time for providers, leaving staff available to focus on unique and complex enquiries, systems must be designed effectively around the consumer experience.

We have identified areas where AI creates improvement opportunities for providers as well as gaps that require consideration.

3.1 AI creates opportunities for providers to improve consumer safeguards

AI may provide opportunities for providers to use environmental scanning to protect consumers for:

- a) **Scam detection** – With cooperation and engagement from relevant stakeholders, AI applications that rely on crowd-sourced data can support future scam reduction initiatives.⁴
- b) **Fraud detection** – With the increased ability to access large volumes of data, providers will be able to 'read' full consumer contact notes. This could protect consumers from identity fraud by identifying patterns that are either consistent or inconsistent with a consumer's actions.
- c) **Self-monitoring** – Providers will have increased capacity to self-monitor their internal systems, providing improved network reliability and the opportunity for continuous system improvement.
- d) **Sales practices** – Providers will have increased ability to detect unusual or irregular patterns in sales activity. We anticipate this oversight will lead to a reduction in staff engaging in poor sales practices. Where issues do occur, providers will be able to identify these more readily.

3.2 AI creates gaps that require consumer safeguards

Regulation is essential to protect consumers and ensure providers are accountable to consumers for their actions. Given the convergence of the sectors, it could be efficient to merge rules and standards for telecommunications, radio and digital communications.

⁴ <https://www.acma.gov.au/publications/2019-11/report/combating-scams-summary-report>

There are opportunities to strengthen consumer safeguards around AI. These include:

1. **Inaccessible or unclear pathways** – AI applications must offer clear, simple pathways for internal and external dispute resolution
2. **Design limitations** – designs must be adaptable and flexible, so where issues such as bias are identified, they can be promptly corrected
3. **Multi-party accountability across supply chains** – providers may purchase and rely on a third party to manage AI. These providers may be affected by AI issues that are not within their control to address
4. **Systemic issues** – as errors built into AI can multiply quickly and may affect large numbers of consumers, it is important that:
 - (a) rigorous testing is carried out before deployment
 - (b) systems undergo continuous or regular monitoring, and
 - (c) there are fail-safe safeguards and contingency responses in place
5. **Robocalls, scams and identity theft** – while there will be improved detection capabilities, the use of electronic signatures and Virtual Private Networks may increase difficulty with verifying the identity of the person accessing a service
6. **Human autonomy** – a person must always be able to over-ride an AI decision or action – this is necessary for both consumer-facing and internal system applications
7. **Consumer agency in interactions** – for effective AI voice interaction, consumers need to be able to interrupt and question AI as they would a person, in order to gain understanding. Without this agency, consumers may unintentionally agree to unsuitable products or terms
8. **Increased data risks** – providers have an increasing ability to filter large volumes of consumer data. Robust rules about how providers use consumer data must be in place. The increase in data collected by providers may also be more attractive to hackers
9. **Data and privacy** – privacy policies about data, such as collection, use and storage must be set out in plain English so consumers understand what they are agreeing to, and
10. **Dark patterns** – AI should clearly set out relevant consumer options. Those likely to be in the best interests of consumers must be visible and accessible via logical and simple pathways – presentation should not be designed to benefit a provider while disadvantaging a consumer.

Case study B – AI decides outcome of Digital Platform complaint

A consumer received an offer of an advertising credit if they reactivated their Digital Platform advertisement. As the current advertisement had been removed, the consumer contacted the Digital Platform and asked whether they were eligible for the offer if they took out a new advertisement. Understanding they were eligible the consumer then took out a new advertisement.

When the Digital Platform did not provide the credit, the consumer made a complaint and was told that the Digital Platform's '*system uses artificial intelligence so they cannot do anything*'.

4 Delivering an equal or better customer experience with AI

The AI Ethics Framework says AI applications should *'be used for beneficial outcomes for individuals, society and the environment,'* and *'ideally...to benefit all human beings.'*⁵

AI should provide all consumers with an equal or improved consumer experience, from improved functionality and efficiency to ease of use. For unique situations, AI must recognise instances where a person is needed and provide accessible escalation pathways to transfer the contact. Similarly, a consumer must be able to access this pathway where needed.

An effective consumer experience using AI and human interaction can be likened to buying movie tickets. Customers making simple purchases can use a self-service kiosk and save time by not having to queue at the service desk. Thanks to those using the self-service option, customers in line for the service desk have a shorter waiting time. Importantly, customers using the kiosk can always see the service desk and if there are any issues, they can easily move into the queue to buy tickets from a person. During AI interactions, consumers need to be able to clearly 'see the service desk' – it can't be disguised or hidden at the end of available options.

4.1 Inclusive design – consumer protection at the heart of innovation

When disadvantaged or vulnerable consumers contact them, providers must meet their responsibilities under 3.4 of the Telecommunications Consumer Protections Code – Disadvantaged and vulnerable Consumers,⁶ regardless of whether the contact is handled by AI.

AI applications must:

- effectively identify disadvantaged or vulnerable consumers
- use appropriate language and tone when responding to these consumers, and
- treat consumers with dignity and sensitivity when transferring an interaction to a person.

4.2 Vulnerable consumers may have unique needs

Given many vulnerable consumers have unique needs, we see this as an area that presents challenges for providers. Some of these unique needs are:

- a) **Mental health** – Consumers who have a mental illness may use language that is indistinguishable from a person without a mental illness. How will AI identify and appropriately respond to consumers who have a mental illness?
- b) **Financial hardship** – Will AI systems include sufficient safeguards to ensure consumers can genuinely afford the products they sign up for online? Selling practices need to be carefully managed with these consumers.
- c) **Language differences** – Consumers may have irregular speech, English as a second language or do not know correct terms or descriptions for their issues. Voice recognition must accommodate times where consumer language or expression is not conventional.

⁵ <https://www.industry.gov.au/data-and-publications/building-australias-artificial-intelligence-capability/ai-ethics-framework/ai-ethics-principles>

⁶ https://www.commsalliance.com.au/__data/assets/pdf_file/0011/64784/TCP-C628_2019.pdf

- d) **AI system navigation** – Difficulty navigating an automated system can be stressful and frustrating for vulnerable consumers. Options need to be accessible and clear and there must be an easily accessed pathways available to service these consumers.
- e) **Victims of family violence** – These consumers often face issues that need individual consideration and can fall outside a provider's usual processes and rules. AI must identify and reasonably respond to consumers to ensure enquiries are addressed and the consumer is protected where there is risk of harm.

Case study C – *vulnerable consumer at risk of losing home phone*

A provider sent a consumer a letter saying their home phone would be cancelled unless they paid \$50 within five days. The consumer told us they were on a disability pension and could not pay the amount within the time the provider gave.

The consumer called the provider to ask for more time to pay the money and to make sure the home phone was not cancelled. The call was directed to an IVR and the consumer was not able to navigate the options to request the extension or speak with a person.

The consumer contacted us and asked if we could contact the provider to make a payment arrangement on their behalf.

5 Moving forward with AI

As AI continues to redefine the communications sector, it generates new risks alongside new benefits. With tasks being completed faster and increased automated decisions, we think it is likely we will see a decrease in 'one-off' issues caused by human error but an increase in systemic issues.

While AI brings many benefits to innovation and competition, it is vital that it is used responsibly and that processes are clear, fair and accessible. This includes providing clear pathways to relevant dispute resolution schemes.

When consumers complain to us about AI applications, a common theme is that they do not feel heard. Whether a consumer is engaging with an AI application or with a person, providers must listen to what their customers are saying.

We will continue to monitor complaints where consumers report experiencing issues using AI applications and will:

- Identify areas where a provider's use of AI is impacting the quality of service provided to consumers, and
- Identify and respond to any systemic issues.

Where we identify areas of concern, we will contact providers directly to discuss opportunities for improvement.