

Industry Sector Perspective

To the Ministerial Advisory Group – Retail Crime



Safety at Service Stations – Facial Recognition Technology and the Trespass Act

The adoption of advanced technologies such as facial recognition technology (FRT) presents opportunities and challenges for independent fuel retailers. With MTA members feeling the impact of an increase in crime, particularly aggravated robberies (of which there has been 81 between January and August this year), shoplifting and fuel drive-offs, many retailers are already exploring how to protect their business and their staff against offending. However, the implementation of FRT raises critical questions regarding its cost-effectiveness, accuracy, and impact on privacy. This submission aims to provide comprehensive insights into the potential benefits and drawbacks of FRT, emphasising the need for careful consideration and collaboration with NZ Police to ensure that any adopted measures support both business viability and community safety.

Current security measures

MTA member retail sites are at high risk of crime in three main areas; drive-off fuel theft, shoplifting, and aggravated robbery (including ram raids). These sites have already put a large amount of investment into target hardening measures at their sites in an effort to prevent retail crime. According to MTA's most recent survey, common security measures at retail sites are CCTV, fog canons, alarms, night cashier serve windows and bollards.

Would there be interest in using FRT?

Facial recognition technology may be a useful tool in prevention and detection of shoplifting and fuel drive-offs – some service stations in other jurisdictions having already started using FRT to combat crimes such as shoplifting and abuse.¹ While service stations already utilise the Motor Vehicle Register to assist in the detection of fuel drive-off theft, FRT could be a useful supplement for this. MTA could be interested in making use of FRT as part of crime prevention and detection methods for these issues, but only if safety and accuracy of the technology can be assured.

However, MTA does not believe FRT is effective for preventing or detecting violent crimes such as ram raids and aggravated robberies, as these offenders take steps to conceal their faces during the commission of the crime. The Privacy Commissioner has a similar view to MTA surrounding whether FRT would be useful for more serious offending, saying: “we want people to be safe as they shop and work.

¹ [Shoplifting: The small businesses using facial recognition cameras](#)

But I have real questions about whether the technology will be effective in stopping violent behaviour or preventing harm.”²

FRT will be most beneficial to MTA members if police respond quickly when notified that a previous offender enters the premises. While there might be some immediate benefit of FRT if it allows staff members to prevent known offenders from entering the premises, this requires personnel to be trained and willing to make the final decision on facial recognition. The Government also appears to support this use of FRT. Hon Mark Mitchell told MTA “It has great deterrent value because the person pops up on the facial recognition immediately and allows staff to respond immediately, they’ll intercept the person at the door.” MTA’s concern is this could lead to retail staff being placed in a position of conflict or danger if they are required to confront an offender that may act with hostility towards them, even if that offender does not have a history of violent offending. FRT should be complemented by a fast police response rather than an expectation that staff will confront offenders themselves.

Fairness and accuracy

Proven accuracy is incredibly important for biometric processing, and at this stage, there remain unanswered questions surrounding accuracy and bias for FRT in general, and more specifically for the New Zealand population. False accusations (not just wrongful convictions) of criminal offending can be humiliating and have life-altering impacts on a person’s reputation, so MTA is supportive of ensuring that New Zealanders can be confident that FRT is accurate *before* it has a place in criminal investigations.

Internationally, the evidence suggests that there are biases built into the programming of FRT that have made the identification of people of colour and women unreliable, suggesting real concerns regarding the technology’s fairness. Overseas research has shown that FRT has problems with minority populations, with research indicating that *“across the board, darker females account for the largest proportion of misclassified subjects. Even though darker females make up 21.3% of the PPB benchmark, they constitute between 61.0% and 72.4% of the classification error. Lighter males who make up 30.3% of the benchmark contribute only 0.0% to 2.4% of the total errors from these classifiers.”*³

Outside of biases, FRT’s accuracy also appears to be variable depending on the way that it is used. In the United States, there have been multiple cases of wrongful arrest which was attributed to the unchecked use of FRT (some of which have prompted policy changes for how FRT can be used).⁴ In contrast, in the United Kingdom Police use FRT as a tool, but always have personnel making the final decision on whether to act on alerts.⁵ As of December 2023, there had been no reported cases of wrongful arrest

² [Office of the Privacy Commissioner | Privacy Commissioner to keep a close eye on Foodstuffs North Island FRT trial](#)

³ [Gender Shades: International Accuracy Disparities in Commercial Gender Classification](#)

⁴ [How Wrongful Arrests Based on AI Derailed 3 Men's Lives | WIRED](#)

⁵ [Police use of Facial Recognition: Factsheet – Home Office in the media](#)

attributed to the use of FRT in the United Kingdom.⁶ This is a good indication that accuracy is improved when personnel make the final decision, although MTA maintains that humiliation and reputational damage can be caused by a wrongful accusation, not just a wrongful arrest. As the Guardian notes: *the danger lies in employing technology as an ultimate decision maker rather than a tool subject to human oversight.*⁷

On New Zealand's population specifically, there is little evidence to determine whether FRT is or is not accurate. Dr Andrew Chen, chief advisor for technology assurance at New Zealand Police, accepted that in small, diverse populations such as New Zealand, accuracy is untested: *"we have a pretty significant Māori and Pacific Islanders population, but they're small as a proportion of the world, so no one's really done the trials. So, there are some sub-populations where the bias question is probably quite legitimate."* The view that there is lack of FRT accuracy in New Zealand is supported by the failure of the police Clearview AI trial in 2020, which only generated a single successful match due to an inadequate dataset.⁸ Māori AI and data ethicist Karaitiana Taiuru raised concerns that indigenous groups, but particularly Māori women, are likely to be targeted in New Zealand because the AI was not trained on their faces.⁹ Indeed, in a trial of FRT at Foodstuffs supermarkets in 2024, a Māori woman was mistakenly identified as a thief at a Rotorua New World. At the time, Taiuru said "Anyone who is Māori, Pasifika, any person of colour is not going to be recognised by the system."¹⁰

Privacy

Information collected using FRT should be safeguarded and limited in both collection and use. If biometric information is being collected on a retail site, there should be clear signage to let customers know. The Office of the Privacy Commissioner (OPC) is developing guidelines on the automated use of biometrics. The scope of these guidelines would likely cover the use of FRT by retail sites, even if a human acts as the final decision maker.

There are three key proposals:¹¹

1. **Proportionality Assessment:** Agencies should evaluate whether the benefits of using biometrics outweigh the associated privacy risks.
2. **Transparency and Notification:** Agencies should be transparent with individuals and the public regarding the collection and use of biometric data.

⁶ [Facial recognition helps fight serious crime, but for minor UK offences it should be off limits | Police | The Guardian](#)

⁷ [Facial recognition helps fight serious crime, but for minor UK offences it should be off limits | Police | The Guardian](#)

⁸ [Office of the Privacy Commissioner | Controversial AI software raises privacy concerns](#)

⁹ [Māori Cultural considerations with Facial Recognition Technology in New Zealand - Taiuru & Associates Ltd](#)

¹⁰ [Māori woman mistaken as thief by supermarket AI not surprising, experts say | RNZ News](#)

¹¹ [Office of the Privacy Commissioner | Biometrics and Privacy](#)

3. **Purpose limitations:** Restrictions should be placed on the collection and use of biometric information for certain reasons.

MTA believes it is appropriate to follow guidance from the OPC to determine how to minimise the possible privacy risks that exist with the collection and use of personal information for FRT.

Regulations and guidelines

MTA recommends the following in terms of regulations and guidelines to support accuracy, fairness, and privacy:

- **Performance testing:** Software must be submitted for performance and accuracy testing on the New Zealand population.
- **Trained Personnel:** Only trained personnel should be the final decision makers regarding whether to act on any alert by FRT.
- **Clear framework and guidance:** An accessible and clear framework must be developed for business owners and staff using the technology that provides guidelines on how the information can be collected, stored, and used (for example, the Biometrics Code of Conduct).

Cost and implementation

The cost of implementing FRT is a significant factor that will influence whether MTA members would be willing or able to adopt it into their sites. FRT is very expensive and well beyond the means of the majority of independent fuel retailers. Any investment would need to be proportionate to the types of offending FRT would assist in preventing and detecting across retail sites. Given FRT may not effectively address the more serious offending suffered by MTA members, such as aggravated robbery, the cost would need to be balanced against FRT's benefits in preventing lower-level crimes such as drive-offs and shoplifting.

The hardware and software themselves are prohibitively expensive to purchase, but, because research has shown that FRT is more effective when it is complemented with trained personnel,¹² businesses will need to invest in training staff to ensure FRT is a useful tool. Personnel will also need to be trained to ensure that they are collecting information in a way that is consistent with the laws of evidence to ensure its usability in court if required. Even if the initial investment is assisted by the Government, the additional training would be an ongoing cost and may well exceed the loss sustained by theft.

For many MTA members, the financial burden of purchasing and maintaining FRT may not be feasible, particularly as retail fuel sites often already operate on slim margins. The Government would need to offer substantial financial support for FRT to be implemented within MTA sites. This could be by way of

¹² [Facial Recognition Technology \(FRT\) | NIST](#)

subsidy, offered in a similar way to the fog cannon subsidy, or through allowing businesses to claim tax relief in the same year that the FRT is purchased.

Working with authorities

MTA's most recent survey of retail fuel sites asked members about their experience with the police regarding fuel drive-offs. 93% of responders reported that they had been victims of drive-off theft and around 65% reported nearly all incidents to police. However, over 40% of responders said they felt inadequately supported in their dealings with the police. Anecdotal evidence suggests that non-violent incidents often go unaddressed by police, so it is unclear why this would change with the introduction of FRT in stores.

When MTA raised this perceived issue with Minister of Police, Mark Mitchell, his response was that *"when there's no threat to life, then unfortunately that drops down the priority list a bit."* While MTA understands constraints on police resources, this raises questions surrounding whether FRT could be effective, as it would primarily be used to assist with non-violent crimes at MTA member sites. It seems unlikely that police will have the resources to respond to each instance, which will place the burden on staff members to act as responders which could put them at an increased risk.

Public perception

FRT appears to divide public opinion. Around half of people perceive that FRT is more accurate than professionals, but 54% are concerned that if FRT makes a mistake, it could lead to serious harm if a person is wrongly accused of an offence.¹³ These concerns are substantiated by the evidence in other jurisdictions, so MTA anticipates a lack of public confidence in FRT without solid evidence to the contrary.

However, even if FRT is accurate, or becomes more accurate over time, a customer's negative perception of it may well influence customer choice. Whether the customer believes the technology to be inaccurate and bias, or they are simply concerned about their privacy, negative opinions may be to choose a different retail outlet, creating a competitive disadvantage.

MTA is against any suggestion that retailers should be expected to take preventive measures that damage their ability to operate a profitable business – for example, MTA does not agree that business owners should be required to close their premises earlier, even if most violent crime occurs late at night. Any solutions to retail crime should be an enhancement for the business implementing it; by way of preventing loss or harm. It should not be the cause of loss itself.

¹³ [The Alan Turing Institute: How do people feel about AI?](#)

MTA's view on FRT

Overcoming the known issues around the use of FRT, in particular live FRT, is a high bar. Concerns around accuracy, bias, privacy and effectiveness are still being explored by the New Zealand Police.¹⁴ These issues, alongside cost, would appear to disqualify FRT as a viable option in the retail sector at the current time. However, MTA believes these concerns do not prohibit further examination and exploration of FRT, and if the technology and deployment evolves to a point of total confidence, then FRT may have a role to play in deterring and apprehending offenders. As such, MTA supports further evaluation of FRT, on an impartial and evidence-driven basis.

Trespass Act

MTA members have advised the following issues exist when serving a trespass notice in the retail fuel sector:

- Those being warned do not wait for a formal written notice to be served, which can make it difficult to pinpoint where or who the notice should be served on.
- Serving a notice can be aggravating and escalate the situation, which may make it dangerous for staff and for customers.
- If notice must be served to the home of the person being warned, finding their address is difficult, and police do not always have the resources to assist in serving notice, placing occupiers in the intimidating position of needing to approach the home of the person being warned themselves.

It is unclear how the process of serving a trespass notice could be improved. MTA recognises that notice need not be served in written form: it is possible to serve a notice verbally. When reporting the notice to the police, the occupier can offer a description of the trespassed person, in place of their name. This does not alleviate concerns about staff safety when serving the notice may put them at risk.

Trespass notices are not always enforced effectively. In many areas, police do not have the resources to respond to trespass calls unless the trespasser is an immediate threat of harm. Instead, staff are required to confront trespassers if they enter the premises. This can be unsafe and intimidating for staff, and knowing who has been trespassed in a busy site is difficult. This carries a risk of mistakenly identifying a person as having been trespassed when they were not, leading to humiliation and loss of reputation for the falsely accused person.

¹⁴ [Police release findings from independent expert review of Facial Recognition Technology | New Zealand Police](#)

An MTA member operating in a rural area explained “we have a great team of police working in our area” and found that the risk of a fine or a visit from police offered enough deterrent that a trespassed person did not return.

However, another MTA member that operates multiple sites advised that around 50% of those trespassed return to the site after receiving a formal notice, suggesting many trespassers are not deterred by being served a trespass notice.

If the notice cannot be effectively enforced, there is limited deterrent value in serving it. If police responded to all, or even most, trespass calls, serving a trespass notice could offer a more effective deterrent.

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