

Officer Initiated Facial Recognition (OIFR)

Trial 9th of December 2021 to 9th of March 2022.

Statistics Analysis

General Use

During the trial period the app was used on 42 occasions towards 35 individual subjects. There is a discrepancy between the figures because on four occasions the app was used more than once with the same subject.

There were a few reasons for this namely;

One subject was wearing clothing that obstructed his face.

One subject was photographed in a very dark street at night with very little lighting.

One subject was photographed a few times as it was difficult to get a good picture as they were deceased following a fatal RTC.

Gender.

- 39 photographs obtained were of Male subjects
- 3 were obtained of females.
- There were no uses recorded against an unknown gender.

Ethnicity.

- There were 4 uses with Arabic North African subjects.
- There were 4 uses recorded with Asian subjects (but this was one subject duplicated who was deceased at the morgue.)
- There were 4 uses recorded with Black subjects, (However two of these are the same subject and BWV clearly shows the subject to be Asian.)
- There were 2 uses with White Southern European subjects.
- There were 25 uses with White Northern European subjects.
- There were 3 uses recorded as Ethnicity unknown. (Matched data shows 1 Asian, 1 White NE, 1 previously listed on Niche as Asian/White/Arabic NA and Unknown.)

Age.

- 10 – 17, recorded uses 6 with 3 subjects.
- 18 – 30, recorded uses 21 with 20 subjects.
- 31 – 60, recorded uses 15 with 12 subjects.

BWV compliance.

- 29 uses were recorded with 26 subjects as some were duplicate uses.
- 13 uses not recorded with 9 subjects as some were duplicate uses.

Reason For Use

Of the 42 uses of the app with 35 individual subjects photographed, the following use **Reasons** were recorded:

- Refused to provide details 7
- Suspect False details 18
- Unable to provide details 17

The following **Grounds** were recorded.

- Suspected Offence 30
- Suspected missing person 9
- Deceased 2
- Suspected to suffer harm 1

Watchlists

- 1 search was made just against the Missing persons watchlist.
- 16 searches were made against the Custody watchlist.
- 25 searches were made against both watchlists.

Match or No Match

- 14 searches were completed with a Match result.
- 14 searches were completed with a No Match result.
- 14 searches were incomplete.

Observed Outcomes from BWV and PNB Entries.

- 11 arrests in total of which;
 - The App was used 9 times where a Match was identified and the person was arrested.
 - There were also 2 arrests where the app had been used but there was no Match.
- 4 persons were Reported for Offences when the app had been used.
 - 2 following a Match and 2 without a Match.
- 5 uses which resulted in Non-Criminal disposals/Safe guarding measures were taken. Including two uses where the subject was deceased and 1 missing person located
- 15 Uses resulted in NFA action being required.
 - 5 of these a person were Matched and 10 were not.
- 7 uses had no outcomes recorded against them

Performance of the Algorithm

The algorithm has performed well in the field and the similarity scores give us confidence in the identifications.

Of the 21 matches indicated by the similarity score which were positioned in Result 1;

- 2 scored 0.90 or above
- 14 scored 0.80 or above
- 4 scored 0.70 or above
- 1 scored 0.60 or above

The highest similarity score was 0.916

The lowest Matched score was 0.61, on examination this match was made with a very poor file image and a poor probe image taken at night in a very dark area but it still made a match. The second lowest Match score was 0.715.

On 12 positive uses the 6 images that were returned were all the same person.

The Highest No Match score was 0.507 which was in Result 3 below two Matches in Result 1 and 2.

Therefore by comparing the match scores against BWV and outcomes we are able to confidently say that no incorrect (positive or negative) identifications were made by officers

Officer Feedback

The feedback from officers involved in the trial is as follows

- the app is user friendly and a benefit to operational policing.
- There have been occasions when the use of the app has lead to vehicles being seized from disqualified drivers who have lied about their identities.
- Shoplifters arrested who have lied to try and avoid arrest to gain an out of court disposal.
- The app has been used twice with deceased persons, one of which resulted in a Match which allowed RPU officers to speed up the formal ID process following a fatal RTC.
- Finally the app has allowed the safe return of a 15yr old missing person from out of force whom it correctly identified after he refused to give his details.