Targeting romance fraud using a citizen-focused approach

Use of socio-demographic data to enrich fraud-reporting data to target hotspots of romance fraud across England and Wales, leading to a reduction in monetary losses to victims of fraud.

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Key details

Stage of practice	Evaluated locally
Purpose	Prevention
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Region	London
Stage of implementation	The practice is at a pilot stage.
Start date	November 2022
Scale of initiative	National

Aim

To use demographic and reporting data to forecast hotspots and demographics of fraud and cybercrime victims to enable local forces to target those areas with tailored crime prevention

information.

Intended outcome

This initiative intends to reduce the amount of money lost to fraud and cybercrime in hotspots areas

Description

Romance fraud has had significant media attention over recent years in the UK. This type of fraud includes dating scams, grooming vulnerable individuals to send money and gifts with the false promise of the perpetrator eventually meeting them in person for a long-lasting relationship.

This results in a double victimisation, as victims not only lose money and financial assets, but also lose a relationship they deemed to be real. Perpetrators of romance fraud encourage their victims to isolate themselves from friends and family. As a result, many victims suffer with serious PTSD, mental health issues and suicidal thoughts.

In an aim to raise awareness of the risks to the public, marketing to warn people about romance fraud was pushed out nationally through social media campaigns and on police force website . However, it was difficult to know who may be looking for that information, and if the people at risk of becoming victims would ever see it. To ensure victims were exposed to the risks, communications campaigns were then tailored by the NFIB gaining a license to use more specific sociodemographic data.

Sociodemographic data was acquired from the Acorn data set, a consumer classification tool that segments the UK population by postcode and is provided and maintained by CACI. Acorn assigns areas of the UK into segments using Ordinance Survey and Royal Mail data sources. This then allows them to segment the people within those localities by demographic segments and further into hierarchical subgroups. There are seven Acorn 'categories', followed by 22 Acorn 'groups' that in turn are composed of 65 Acorn 'types'. More information about Acorn categories can be found at Acorn (caci.co.uk).

Working in collaboration with the University of Cambridge to conduct evidence-based research into the use of three years of Action Fraud and romance fraud victim data, combined with current Acorn socio-demographic data we wanted to understand if there were patterns of victim demographics

that could be targeted with crime prevention activity. Our analysis provided hotspots and suggested methods to target the most frequent Acorn data categories, groups and types with crime prevention messaging that the big dataset suggests they would most likely receive and respond to.

The NFIB defined hotspots as having three or more victims at a certain postcode area each year. This was forecast over three years. If the same postcode area had three victims each year, that would be considered a hotspot. Secondary hotspots were areas where three or more victims were identified in the first and third year but had dropped off in the second year, or where three or more victims were identified in just years one and two.

Firstly, over three years it was identified that there were chronic (three or more victims every year for three years) postcodes across England and Wales that returned year on year. This suggested whatever work was previously being done to protect victims in these areas was not working.

Secondly, they found that 50% of romance fraud victims were in 17% of places, thus they could target victimisation by location. However, it was also found that different hotspots had different socio-demographic groups, therefore they would all receive and respond to crime prevention differently. Consequently, the one-size-fits-all approach currently done in policing for crime prevention would not work for a multitude of potential victims. This research was published in May 2023.

This was presented to regional fraud development officers, to see if any forces would be interested in testing the research. Greater Manchester Police were keen to try this methodology out and created spreadsheets, tracking incidents and romance fraud prevention campaign tactics. There were six identified hotspots, and they targeted these specific areas by using the sociodemographic data from Acorn to tailor their strategies. For example, would the victim groups in those areas be more receptive to crime prevention in newspapers or posters? Which supermarkets should these be put in? The hotspots differed from one another in the Acorn profiles that were attributed, therefore GMP tailored their crime prevention campaigns accordingly.

The Acorn profiles created by sociodemographic data recommended where victims were most likely to be exposed to information. The NFIB can build tailored crime prevention packages in line with these profiles, which police forces can apply local knowledge to.

Evaluation

The journal articleDating hot spot to fraud hot spot: Targeting the social characteristics of romance victims in England and Waleswas published in May 2023.

This study seeks to address these issues by answering the following research questions:

- can geographic hot spots of romance fraud be identified and cross-referenced with “segmentation data?”
- if so, how stable are romance fraud hot spots throughout time?
- to what extent might preventative approaches be locally tailored using segmentation data?
- what types of preventative activity does the profile of key segmentation groups suggest?

The journal article found that romance fraud was rising year-on-year across every region in England and Wales, increasing 55% during the three years between October 2018 and October 2021. It showed that 50% of all the romance fraud victims in the period resided in 17% of the places where romance fraud had occurred. A total of 439 locations (outward postcode areas) were identified as the “power few” in the first year of the data set. Of these 439 locations, 162 of them recurred in both of the following years, becoming chronic “hot spot” locations containing more than one in six of all reported romance fraud victims. The demography of victims in repeat locations differed considerably, but hot spots were more frequently predominantly populated by less affluent populations.

The article outlines that the current national one-size-fits-all fraud prevention approach may not be the most efficient or effective way to reach those victims who most require crime prevention advice.

Overall impact

To test the research, Greater Manchester Police applied this to their six romance fraud hotspots.

In the first year of piloting, they saw dramatic reductions in the money lost to romance fraud victims in the hotspot areas, with the lowest decrease recorded as 89% in one month. In some months they had the same number of victims as the year before, but they lost nothing economically.

The practice was then published in the National Fraud Intelligence Bureau's Annual Assessment of Fraud and Cyber Report, and is now in development for full implementation to multiple forces and regional organised crime units.

Greater Manchester Police found that they stopped targeting the hotspots in May, June and July prompting a rise in victim losses. September onwards there was a reduction again due to the restarting of hot spotting.

Other forces are looking to trial this method such as Avon and Somerset, South Wales, Gwent, Kent, Essex and Thames Valley Police. Essex Police also looked at targeted social media work using the hotspots material.

Many forces are coming to City of London Police to discuss the use of this data, and often have picked up on the use of it locally. It is a big data set that policing should be using. It has recently been presented at the Cambridge Conference of Evidence Based Policing and gained significant interest on the local delivery of it for more than just fraud. This is a low-cost solution for understanding victims in communities and making better use of police outputs to communicate with (potential) victims.

Learning

To be successful, this initiative requires:

- The procurement of socio-demographic data. The procurement process was time-consuming but as the data is relatively inexpensive it was a very low-cost procurement process. Other forces have since done the same and forces have collaborated with other local authority partners and police to procure their own. CACI send the data over which is compatible with Excel and additional police software. No data is sent to CACI, so this is ingest only.
- Access to datasets of victim data for a crime type over three years. This can be applied to crime types outside of romance fraud, therefore the possibilities of crime prevention opportunities with this data are vast.
- Buy-in from staff to complete this both on the ground and in communications outputs for hot spot areas. In person briefings were given to forces, key stakeholders and the NFIB team handling the data. When stakeholders saw the findings from the published research paper, there was very enthusiastic buy-in.
- Effective communication to police forces. Explanation to forces of how to use the data initially took time, but once this was simplified and the delivery method was tailored, it was picked up well.
- Local policing resources. It is important to have neighbourhood policing teams involved in the crime prevention targeting, as their own local knowledge of the hotspot areas is incredibly

beneficial to the delivery of the campaigns. They will also act as the local police contact for those areas, so will be an asset for relationship building and engagement.

- When the hotspots targeting stops, a quick increase in victim losses was observed. This would need further evaluation and experimentation to understand why and is an opportunity for more evidence-based research.