

CAMPAIGN AGAINST MOBILE PHONE THEFT

Organisation	Greater Manchester Police
Trigger	<ul style="list-style-type: none"> • Rising levels of muggings, especially against children. • Lack of action on the part of industry.
Objectives	<ul style="list-style-type: none"> • To reduce theft of mobile phones. • To reduce street robbery generally.
Tools/techniques	<ul style="list-style-type: none"> • Police initiative. • Collaboration with local schools.
Enablers	<ul style="list-style-type: none"> • Media interest in the issue. • Commitment to crime prevention.
Tensions	<ul style="list-style-type: none"> • UV markings fade over time. • Not a design-led solution. • Police have to carry the necessary equipment to identify markings.
Impact	<ul style="list-style-type: none"> • Scheme launched only recently and therefore difficult to determine the extent to which it will reduce theft/robbery.
Lessons	<ul style="list-style-type: none"> • Police and local organisations can work in partnership to tackle issues of child safety. • Action becomes necessary when faced by social issues which industry has yet to tackle. • Design of equipment for UV marking affects their use.

Synopsis

This case discusses a scheme to security mark mobile phones used by school children in the North West of England. The aim of the scheme was to reduce theft of mobile phones and street robberies. It was triggered by concerns over rising levels of street muggings involving children, whether as the victim or the perpetrator. Police forces are visiting schools in the North West in order to publicise the importance of property marking and provide the necessary tools. The pack provided includes a UV marker pen, tamperproof hologram sticker and instruction sheet for recording and indicating the identity of the mobile phone. Such action has been taken as mobile phone theft has yet to be adequately addressed by the industry.

Background to Campaign Against Mobile Phone Theft

Industry insiders estimate that one in ten mobile users have had their mobile phones stolen at some point in time, with many of the units ending up in the hands of unsuspecting new owners re-equipped with a new SIM card (News, 2001). About 15,000 mobile phones are stolen each month in Britain, with 1,600 thefts in London. The trade in stolen phones could be costing businesses and consumers a lot of money, as well as tying up valuable police resources. Of particular concern is the theft of mobile phones from young people. In Holland, police arrested an 11-year old who had pulled a knife on another boy in order to get his mobile phone. The police recorded a sudden increase in street robberies, with theft of mobile phone involved in three quarters of those crimes. Thefts were up to 450 per month, and many of the robbers were teenagers and schoolchildren (Tendler and Lister, 2001).

The popularity of mobile phones and the widespread use of text messaging took the industry completely by surprise, say industry representatives. The potential for people being mugged on the street for mobile phones had never been considered. Action by the industry to tackle the problem of crime has been taken only recently. Ericsson, for example, has introduced a phone lock system, which requires the operator to use a code to operate the SIM lock, thus preventing the phone being used when switched off.

Concerned groups (e.g. the police and toy manufacturers) and consumers, some the victims of crime themselves, have taken action themselves. Willie Potgeiter, a South African entrepreneur launched the Celltrace.com website, as a result of having had his mobile phone stolen. This will track phone ownership using the unique identification number in each handset. Serial numbers, referred to as the International Mobile Equipment Identification (IMEI), are given to each phone on manufacture. Often located under the battery, this is present even if the SIM card is changed (News, 2001). Potgeiter says that:

“We are slowly but surely getting networks to link into the system. We are already getting quite a lot of support, but we need to get the word out further. At least we are trying to save consumers a bit of money. It’s the public that usually end up paying for theft” (quoted in News, 2001).

In the UK, Orange and Vodafone were approached in February 2001 and were considering using the security system (News, 2001).

Randi Altschul, a toymaker from New Jersey, has designed a mobile the size of a stack of three credit cards that she claims will sell for less than \$10, including pre-paid calls. It has none of the features of fancy mobile phones, but is considered ideal for children, as it would reduce their chances of getting mugged. The product should be on the market in the US later in 2001 (Evening Standard, 2001).

Under a Dutch Scheme established by the police, details of stolen mobile phones are fed into a computer system that automatically dials the appropriate numbers. A short text message is sent to each phone reported stolen every three to five minutes. It says: “*This device is stolen. Purchase or sale is an offence – the Police*”. The phone beeps each time a message is sent, thus alerting people nearby to what is going on. The text message also interrupts any use of the phone. If turned off, it stops dialling until the phone is switched on again. Any attempt to switch the SIM or memory chip card results in the identifying code being used to continue tracing the phone. By bombarding stolen mobile phones with text messages to make them unsaleable and

unusable, Dutch police have successfully reduced theft by 60% (Tendler and Lister, 2001). Scotland Yard and Merseyside police are studying the project with a view to implementing in the UK. With text messages costing up to 55p each, however, British Police will want to see industry contributing to the cost (Tendler and Lister, 2001).

In the meantime, some regional police forces are taking action to address mobile phone theft, especially as it relates to children. As part of their anti-street robbery campaign, Officers from Greenheys Police Station, Moss Side, are helping young people by ensuring that their mobile phones are security marked. For some time, security marking has been recommended by the police as a means of deterring burglars because it is harder for a thief to sell someone's property and it can help the police return it, if it is found. In only 9% of cases where something is stolen is it returned (Home Office, Crime Reduction Unit, 2001).

This case is based on a visit to Whalley Range High school, organised by Judith Sadler, Crime Reduction Advisor, Greenheys Police Station, Manchester. This was used to gain publicity for the launch of the campaign.

Design Process

Concept

The security marking was seen as a method of identifying mobile phones used by young people, without causing damage to the property. The aim was to encourage records to be kept of the unique identifying number and mark the postcode on the mobile phones with a UV pen. According to Judith Sadler, Crime Reduction Advisor:

“This will deter offenders from stealing phones and reduce the numbers of young people becoming victims of street robberies” (Roberts, 2001).

Development

Police Officers had been equipped with UV flashlights, which would enable them to check whether a mobile was stolen by its identifying marks. The flashlights are now smaller than previously, which means that police officers are prepared to carry them when on patrol. Police officers already carry a lot of equipment, thus convenience is a key issue.



Figure 1: Size of UV flashlight relative to the phone and pen

Police officers were also provided with indelible markers, with which to write identifying codes on the mobile phones. Once dry, the markings cannot be removed using detergent and are still visible when crossed out using the indelible marker. Along with the marker, is a set of simple instructions, a record card and a hologram tamperproof sticker.



Figure 2: The set containing holograms, a pen and a leaflet

Implementation

The property marking kits containing the pen, instructions and hologram were given out to schools. The larger sized flashlights were provided for schoolteachers, who keep the equipment at the reception desk rather than carrying it around.

The marking process requires the mobile phone owner to turn the phone on and key in *#06#. This brings up the IMEI number, which identifies the handset. There is a small possibility of other phones in the world having the same IMEI number, so

details of the SIM card and forensic data would also be collected. The IMEI number is recorded on the record card. The owner then turns off the phone and removes the back cover and battery, if possible. On the inside of the handset, behind where the battery sits, the owner uses the UV pen to mark the postcode followed by the house number. This process is repeated on the inside cover of the phone, where the markings are allowed to dry. The phone is then put together and, if desired, marked on its exterior. The hologram tamperproof sticker is placed on the outside of the phone in order to act as a visible deterrent to would-be robbers. The owner fills out the record card and keeps this in a safe place. If the phone is stolen, its owner should contact the service provider and quote the IMEI number, along with additional sales information.

Launch

Officers have visited schools and colleges to educate staff and pupils about the benefits of security marking mobile phones and what to do in the event that one is stolen. Pupils, teachers and the press at Whalley Range High School were shown how the UV flashlight reveals the postcode.



Figure 3: The UV flashlight reveals the postcode

The hope is that schools will make security marking compulsory.

Tensions

UV marking is used when other methods would be unsightly and/or reduce the value of the object (Home Office, Crime Reduction Unit, 2001). Although the identifying marks made by UV pens used to fade over time, current ones on the market are described as permanent. They are, however, considerably more expensive. Thus, pens were not allocated to individual phone users, but to representatives from schools and universities, resulting in one pen being used per thirty phones.

Impact

The visit to Whalley Range High School represented the launch of the scheme and was recorded by the local newspaper (Roberts, 2001). The advantage of security marking is that schools can use it to check that pupils are not carrying stolen mobile phones and/or establish ownership in cases where ownership of a mobile phone is in dispute. The portable UV flashlight can be used by police offices to check the identity of mobile phones being used by people on the streets. The effectiveness of the scheme will depend, however, upon its widespread adoption by police and schools working together in partnership. The police are currently working closely with schools and universities to promote security marking and safety awareness. Such activities are being combined with high profile policing, which will make it difficult to determine the effectiveness of the security marking itself.

Lessons Learned

This case shows that schools and police officers can act together to tackle theft of mobile phones from young people. Such efforts have been facilitated by improved, more convenient technology. Action is required because the mobile phone companies have yet to fully address the problem of mobile phone theft. Action will become even more necessary as mobile phones comprise more sophisticated and valuable technologies such as Bluetooth, although some technologies may also improve security. For example, Ericsson's first product using the technology, the Bluetooth Headset, is a lightweight wireless earpiece that enables users to make or receive calls to their mobile phones without having to take the phone out of their pockets (News, 2001). This potentially reduces the risk of using the phone on the street.

References, Related Case Studies and Further Reading

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Malcolm Ash
Marketwise
Tel: 01886 812427

Classification Index

Eklblom's crime classification	Misbehaviour (robbery), misappropriation (theft).
BCS crime classification	Theft, robbery.
DAC	Protecting school children.
Primary motivation	Social – to protect children.
Type of designer	Police/industrial designers.
Approach	Application of existing methods.
Sector	Education
Location	Schools
Author	Caroline Davey

DAC – Mobile Phones in Schools