Less Telephone Vandalism: How Did It Happen?

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Vandalism to Telecom Australia's coin-operated public telephone system has been markedly reduced over the last 4 years. A retrospective analysis reveals that this was primarily due to Telecom's new management approach to the system, which brought with it associated crime prevention approaches. They included progressive target hardening of coin boxes that reduced attacks on, and subsequent damage to, public telephones. Target hardening was introduced in direct response to the activity of organized professional thieves, and geographical displacement of their activities was then observed. A great variety of activities including informal surveillance by employees and rapid repair programs have prevented much vandalism. Those activities reflect the business imperative of keeping the public telephone system operational and profitable—the crime prevention impact was to some extent serendipitous.

Keywords: Australia; crime prevention; telephone vandalism; crime displacement

Introduction

Any marked reduction in reported crime invites attempts to explain it. Obviously, if the factors that explain any reduction can be confidently identified, they may be valuable for future crime prevention (or reduction) activities.

The major strength of retrospective analysis of reductions in crime is that, with the benefit of hindsight, relevant factors can be documented and assessed, even if they cannot be disentangled. The danger with that sort of analysis is that it may still either miss vital factors or attribute too much to minor factors.

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Australian Public Telephone Vandalism

Public telephone vandalism in Australia is a particular offense that occurs less today than it did 4 years ago. Accordingly, it invites explanation.

Unfortunately, reliable statistics of the actual frequency of that vandalism are not available. In part, this is because a damaged public tele-

phone may not necessarily be classified as vandalized by the technician who attends and repairs it. Data relating to the prevalence of this offense, therefore, are incomplete, spasmodic, and localized. Notwithstanding that, the costs to Telecom Australia of repairing damaged public telephones (which are generally sited in public places in custom-built glass and aluminum booths) have been reduced from about A$18 million 4 years ago to around an annual A$7 million at present. Note that this measure of crime is cost, rather than the number of incidents.

As the number of public telephone booths has actually increased by about 15% over the 4-year period—currently 35,000—cost appears to be a reasonable measure. However, if the cost of repairing the damage to one vandalized phone had, say, been halved in the period, the number of incidents may not necessarily have been reduced at all. Therefore, any analysis, including this one, would be a waste of time.

In fact, labor and material costs have certainly not been reduced over the 4 years, so total cost of repair is a reasonable measure. Nevertheless, confident analysis of what appears to be a reduction in the offense is difficult, and although a recent attempt at this by Wilson (1990) does identify important factors, many others exist that need to be acknowledged.

Defining the Offense

An essential part of assessing a crime prevention measure is to obtain data on the particular crime problem through all sources including close local scrutiny and research (Ekblom, 1988). It is no less important in a retrospective study to fully understand the problem in its entirety.

Quite simply, damage to public telephones may not result from criminal activity. This is not exceptional: Gladstone's (1978) research into "school vandalism" revealed that in half of the schools under review accidental damage was the major problem. Public telephone damage can be conveniently grouped into the following four categories, some of which are plainly not strictly speaking vandalism nor would be able to be prevented:

1. *Incidental damage* occurs in conjunction with some criminal attack on the public telephone, most commonly the theft or attempted theft of the coin box or coin. Cohen (1973) calls this "acquisitive vandalism," but that phrase does not reflect the fact that damage occurs in conjunction with another crime rather than its being the sole intention of the offender.

   It is important, especially when considering the prevention of vandalism, that the reason behind the property damage is acknowledged. Concentrating on vandalism rather than theft confuses the issue. This occurred when a (Sydney) magistrate claimed in 1986 that public telephone vandalism was "an organized crime costing the community millions of dollars a year" (Fitzgibbon 1986). Those comments were actually made when sentencing to prison an offender found guilty of 34 charges of stealing cash and 35 charges of damaging or interfering with public telephones. It was indicated to the court that the cost of repair to the relevant telephones was A$21,000—expensive vandalism to be sure but not the offender's prime motive. He was a thief, and the damage was incidental.

   Not all thefts of cash from public telephones involve damage. In the past, employees of Telecom Australia have been prosecuted for such offenses. Physical measures, including key-traps and rekeying coin box access, have prevented further such thefts that generally involve little damage.

   However, thefts committed by the public invariably do cause damage. Interviews with youths from a high-crime area in Britain revealed that most were aware of techniques used to steal coins from public telephones. Giller (1988, p. 12) reports for those youths that "theft was the most common cited motivation for damage to public payphones"; that is, the damage was a necessary part of the theft. Even though the damage to the public telephone was deliberately inflicted, the purpose of that was to enable theft.
2. *Malicious damage* occurs where an offender deliberately damages a public telephone. Markus (1984) draws attention to the important distinction between damage to the cabinet (including window breakage, graffiti, and amateur bomb attacks) and damage to the telephone instrument itself (including smashed handsets and damaged dials). Notwithstanding, this category includes a variety of dissimilar events such as the small shop owner who regularly cut the handset cords on the two public telephones outside his shop to increase the use of the coin-operated phone he had installed for his customers' use, and the youths who kicked in a phone box "just for fun."

   British Telecom research indicates that their public telephone vandalism problem falls mainly under this heading. Their major study shows that while 10-12-year-old vandals are simply destructive, different motives hold for older youths. In particular, they say, teen-age vandals were "rebellious, creating problems at home and were anti-

everything." Their vandalism "coincided with puberty, and the telephone was often the victim of anger and frustrations that could not be expressed anywhere else" (British Telecom, 1988, p. 13).

3. *Frustration-related damage* occurs when a public telephone user inflicts spontaneous damage on it following a technical difficulty that prohibited a call being made or concluded; an unsatisfactory personal call; or, indeed, an unrelated matter. A recent example of the last is the 18-year-old youth who kicked in the glass panels of a phone box because he was angry when a drunken, elderly man jumped the taxi queue and hit him with a newspaper. (He was fined A$360.)
4. *Accidental damage* occurs as a result of carelessness or mishap, most frequently involving a motor vehicle. Each month, 35 street-located public telephones in Australia are knocked over by motor vehicles, the vast majority being pushed off their concrete bases following cars parking or performing U-turns.

It is exceedingly difficult to apportion either the financial cost, or numbers of incidents, of damage to public telephones across these categories. Indeed, the basis for all statistical data on public telephone damage is the technicians' reports completed after they attend a public telephone reported as out of order. Faced with a physically damaged public telephone, and without any specific guidance about classification, a technician might define a broken window as accidental, malicious, or frustration-related, depending on his or her subjective assessment, diligence, or imagination. The best that can be said is that it appears that many of Telecom Australia's current problems are theft-related and, therefore, can best be described as incidental damage.

British Telecom confidently states that "nearly 30 percent of all public telephone faults can be directly traced to vandalism" (British Telecom 1988). This could be true for Australia, but the precision of available statistics is not sufficient to confirm that.

As Wilson (1990) points out, this lack of reliable statistics presents real problems for evaluating possible explanations for reduced vandalism to public telephones. More seriously, the inability to distinguish between noncriminal (accidental) damage and criminal (malicious or incidental) damage complicates any analysis because the costs of repairing accidental damage are included in the measure of crime introduced earlier. Installing guardrails around public telephones in shopping center parking lots may have reduced future costs of repair but cannot be said to have prevented crime. Nor can that sort of action explain more than part of the drop in the costs of repairing damage to public telephones.

Telecom Australia's Response

The major explanation for the marked decrease in the costs of vandalism and damage to public telephones is that the management of this part of Telecom Australia's business has changed.

In particular, management consultants pointed out in 1987, when there were high levels of damage to public telephones, that around 16 separate sections of Telecom Australia were actually involved in public telephone management. That diversity of interest and lack of focal supervision were resolved with the establishment of the Payphones Division in mid-1988. That division's enthusiastic and professional approach to improving public telephone serviceability, eliminating losses, and promoting the use of public telephones is in great part the explanation for reduced vandalism in the public telephone area.

It is important to note that the management change was not introduced as a crime-prevention measure to reduce vandalism. Rather, it was introduced to improve performance in the public telephone area, and part of getting public telephones operational involved tackling vandalism and damage.

The new management adopted considered direct and common-sense responses to their existing problems, including that of crime. Those resources mirror the common-sense approaches that have been developed to reduce crimes associated with, for instance, sales tax avoidance and theft in hospitals (Smith and Burrows, 1986).

Additionally, the change in management responsibility cannot be simply described as a "multifaceted campaign designed to reduce telephone vandalism" (Wilson, 1990, p. 149). The action taken by the new management did include positive action to address vandalism to the public telephone system, but its major thrust was directed at getting those telephones operational and enhancing Telecom Australia's business activities.

New Management Approaches

The particular activities that were implemented, and that have helped reduce the costs of repairing damaged (including vandalized) public telephones, are set out below. It is important to note that there are far more of these activities, and they are far broader, than those suggested by Wilson (1990) in his analysis.

It is most convenient to list the various initiatives by reference to the seminal work of Clarke (1978), which suggested that vandalism against public property merited measures to directly protect it (pp. 71-74). The five measures he suggested that are relevant to public telephones are as follows:

1. Target hardening

A great many protective physical measures have been introduced over the last few years, particularly in response to malicious and incidental damage. Target hardening to reduce malicious damage to public telephones has included

- Replacement of the bottom glass sections of full public telephone booths with steel mesh.
- The removal of doors, traditionally a major target for vandalism, where weather conditions do not require doors.
- Design of new improved half-booths comprising a low-maintenance stainless steel and glass upper structure supported on a single pole.
- Strengthened handsets and stainless steel cords and redesigned dials.

Physical target hardening to reduce thefts of coins, and their associated incidental damage, include

- The strengthening of the coin box and its security through development of the "Kirk safe," "Barker link," and wave door.
- Modified coin refund chutes that are hard to block.
- New metal coinheads that restrict direct access to the coin-race and make it difficult for thieves to block the race and recover trapped coins at a later time.

There is absolutely no doubt that the introduction of these physical changes has led to a reduction in vandalism and coin theft, as Wilson (1990) has pointed out. To elaborate, the "Kirk safe" was developed in 1985 by Telecom artisans following a rash of oxyacetylene and other attacks on the locking mechanisms protecting the public telephone coin box, particularly in the State of New South Wales (NSW). The inventors of the "Kirk safe" were rewarded for their innovation with an award of A$ 15,000 from Telecom's Staff Suggestions Board, and it was installed in NSW, particularly where the coin box attacks, and incidental damage, had occurred.

In the adjoining State of Victoria, where organized attacks on public telephones had not been a problem, Kirk safes were not widely installed. That fact did not escape the attention of NSW coin thieves who, in a classic example of displacement, crossed the border and plied their trade in Victoria. By the end of May 1986, nine offenders were apprehended as a result of formal surveillance. Six were sentenced to prison terms for the 353 attacks on public telephones, for which they were found guilty.

The "Kirk safe" is not cheap, and there were many public telephones in Victoria that were still without it during 1987. The middle of that year saw the arrest, after formal surveillance, of a gang of five who were convicted of 138 counts of theft and 138 counts of malicious damage. Three of those offenders admitted having learned how to steal the coin boxes while they had been serving time in prison.

Thereafter, the vast majority of coin boxes in Victoria were target hardened, but not with "Kirk safes." Instead, the Victorians devised a much cheaper measure—welding a piece of hardened angle iron over that part of the steel door that protected the locking mechanism. That, too, won an award from the Staff Suggestions Board and was successful insofar as the next gang of four offenders, apprehended in April 1988 following formal surveillance, had tackled only public telephones not having the angle iron attachment.

The next adjoining state of South Australia had not suffered the level of organized thefts in Victoria but readied itself in early 1988 by starting to install its own local response—the "wave door," originally developed in Western Australia. The wave door also further protected the coin box locking mechanism from attack, but at only a tenth of the cost of the "Kirk safe." It was, therefore, preferred. A marked upsurge of coin box thefts, possibly displaced from the Eastern States, helped speed up the replacement of the standard, and often compromised, coin box doors with wave doors, and by late 1988, they had been installed across the state.

The above clearly illustrates that physical target hardening reduced incidental damage to public telephones in Australia over the period 1986-88. However, it also indicates that the various regions were independently tackling the problem at their own pace—no coordinated approach or formal campaign was responsible for these activities at that time.

The subsequent coordinated management approach has built upon these physical responses with the introduction of the *Phonecard,* which designs out opportunity rather than actually target hardening. This prepayment card, which allows use of a public telephone without the need for coin, has now been introduced in Australia. Obviously, coinless public

telephones will considerably reduce the prevalence of incidental damage. But they may also impact upon other vandalism. Scotland provides a good example: In 1987, vandalism of the public telephones on one Glasgow housing estate reached the point "where it became difficult for British Telecom, to maintain a service." After overcoming resident resistance, and with a considered publicity and education program on the estate, the phones were converted to phone-card operation. In the following *2* months, not one of the phones was damaged (OFTEL, 1988, p. 48).

2. Formal Surveillance

As indicated above, Telecom Australia has achieved some modest, but considerable success through formal surveillance of high-risk telephone boxes with its own security staff. By way of further example, in late 1984, public telephone box thefts were running at around 400 a month in the Sydney metropolitan area. This led to a special public telephone surveillance team being established and, over the next 12 months, the theft rate fell to about 50 a month.

Surveillance is, of course, a most expensive exercise, and it is viable only where major and persistent incidents of incidental damage occur. Electronic surveillance has been used but found to be of modest success when costs are taken into account. The best, and Telecom Australia's continuing approach to, surveillance is to use it where major problems arise.

3. Natural Surveillance

Natural surveillance is a variation of defensible space. Very simply, if a telephone booth is situated in a busy public place or is otherwise observable, for instance from adjacent buildings, then it is provided with natural surveillance (see Mayhew *etal.,* 1980). Moran and Dolphin's (1986) study of the characteristics of public telephone locations in Dublin did not find that features such as levels of vehicular and pedestrian traffic, accessibility, and local vandalism could be used to identify locations that suffered greater damage.

Nevertheless, by removing or resiting many public telephones that were situated in dark or quiet locations, Telecom Australia has effectively increased the percentage of public telephones that are provided with some sort of natural surveillance.

One way in which natural surveillance is increased for Australia's public telephones is through keeping booth lighting operational. Lighting is provided to make public telephones identifiable from 400 meters away and to assist with the operation of the phone. However, a working light inside the booth also reduces the soiling of public telephone booths and seems to lead to greater usage as well as increased visibility of the phone user to the passerby. All of which leads to additional natural surveillance.

4. Employee Surveillance

Surveillance by employees in the normal course of their work has long been observed to reduce damage in the workplace. Caretakers, doormen, bus conductors, shop assistants, bartenders, and many others all play this role (Mackay, 1988, p. 89). It is not surprising that increased attention from Telecom Australia technicians, cleaners, and coin collectors have also contributed to the decrease in public telephone vandalism that has occurred in recent years.

Fortnightly cleaning of public telephones is now the national standard (although some remote and country locations are cleaned less frequently). A system has been introduced so that cleaners dial a special telephone number and report not only that they have cleaned a particular public telephone, but also any maintenance work that is needed.

Telecom Australia now undertakes the majority of coin collecting from public telephones, having terminated arrangements with Australia Post. This has led to more frequent clearances of coin (itself a problem in the past in that a full coin box renders a public telephone inoperable). It has also led to a further presence at the public telephone, another avenue through which damage is noted and a less attractive theft target as coin boxes contain less cash.

Recently, Telecom Australia has commenced selling *advertising* space in and on public telephone booths. It has been claimed, by advertising proponents, that such advertising has proved dramatically effective in reducing vandalism and graffiti. All that can be said at present is that the advertising itself has not attracted separate and major attacks. However, it has not been widely introduced. Indeed, it appears that many local councils disapprove of it and see it as aesthetically offensive—even perhaps as offensive as graffiti.

The related problems appear to be two. First, that booth advertising will mask the public service nature of the public telephone and encourage defacement. Second, that others will be encouraged to add their unauthorized decals and posters on booths (even over Telecom Australia's how-to-call instructions).

In some areas, Telecom Australia has actually used their own *deed* to address vandalism problems. One

decal with relevant graphics reads, "this public telephone could save your life," and it is plainly intended to deflect offenders. Its effect is not easily measured, and its use is also not wide enough for its effect to be reflected in general statistics.

5. *Rapid Repair*

There is absolutely no doubt that public property that is well maintained and obviously well cared for is far less likely to be damaged. What is also important is that when damage is noted it is quickly repaired.

To achieve this, specialist public telephone technicians have been recently introduced to act promptly on the problems reported from any source.

A further innovation is the public telephone monitoring system whereby a mechanism will report direct to a central computer when the coin box is almost full, the handset has been removed, or the phone has not been used for 2 days. While still under trial, this system when fully operational will provide another valuable source of information for technicians to ensure that public telephones are kept operational.

Employee surveillance and rapid repair directly reflect the new management approach of Telecom Australia to the public telephone business. Again, they were not introduced specifically as crime prevention measures but they have plainly had their own impact upon vandalism.

The value of each of the last three approaches has been documented in the literature. For instance, Mayhew *et al.* (1980) showed that "supervised" public telephones in cinemas, cafes, laundromats, and the like were less likely to be damaged. Wilson and Kelling (1982) also indicated that vandalism was more likely where property showed signs of being uncared for.

Public Activity

Apart from the above five measures that have been implemented within Telecom Australia, a number of initiatives directly involving the public have also been introduced.

These need to be seen in light of Telecom Australia's considerable public exposure. Media coverage and advertising ensure Telecom Australia is almost constantly in the public eye. In the public telephone area, a recent campaign has publicized the fact that "Nine Out of Ten" public telephones are now operational. The public are thus made aware that public telephones are now being maintained efficiently and being cared for, and are also being encouraged to make greater use of them.

A public telephone that is used more might be expected to suffer more damage (reflecting constant wear and tear) or less damage (because they are a valued and highly utilized community resource). Existing (British) research on this topic is equivocal. Mawby's (1977) study found that telephone kiosks for which takings were highest were the most heavily vandalized. A more extensive study by Mayhew *et al.* (1980) found no such strong relationship, and Markus (1984) asserts that "the heavily used kiosk suffers relatively little." No relevant Australian data exists, so the effect of any marketing publicity on damage or vandalism cannot be stated. Nevertheless, even seemingly neutral public activities could have some effect on vandalism.

A specific public activity that directly addresses vandalism is the Adopt-A-Phone program that aims to reestablish the public telephone as a community resource and encourage community members to assist in caring for it. The program is mostly aimed at school children, although some Neighborhood Watch groups have also taken to overseeing their local public telephones. In the formal program, the children design and paint a motif on the public telephone booth, clean it, and regularly check its condition.

On the face of it, this program has been most successful, with maintenance calls and costs being reduced noticeably since its introduction. One of the best examples is provided by the Driver High School in the Northern Territory where the program was first introduced. The public telephone adopted by students at that school had needed over 100 maintenance calls a month prior to its "adoption" by the students, but has now averaged less than 10 a month for the 2 years the program has operated. In that time, there have been four acts of vandalism, compared with that number per month prior to "adoption."

This program was implemented at the same time that target hardening was taking place in the region through installation of wave doors and Kirk safes. Wilson provides statistics relating to the target-hardening exercise in the region (Wilson, 1990, p. 152), and although he is quite right that those "measures were clearly effective," it must be noted that the Adopt-A-Phone program was introduced at the same time with the same primary objective (See *Table 1).*

Some effort has been put into the introduction of *educational materials* specially prepared for primary schools. These materials emphasize the ways in which telephones, and public telephones in particular, are essential and valuable to the community. Any impact that such material would have on a vandalism problem

Table 1. Public Telephone Vandalism and Activity in the South Australia/ Northern Territory Region, July 1987-September 1990

Quarter Ending	Recorded Incidents of Vandalism	Notable Developments
September 1987	1373	Region's public telephones virtually "unprotected" despite Eastern states problems and target-hardening activity
December 1987	1821	
March 1988	3459	Marked upsurge in coin box thefts and incidental damage
June 1988	5666	Gradual introduction of target hardening with wave doors, Kirk safes, and modified coin heads
September 1988	5062	Payphones Division established to manage Telecom Australia's public telephone business. New policies for maintenance, cleaning, and coin collecting developed
		Adopt-A-Phone program commenced in the Northern Territory. After reductions in damage to telephones "adopted" by local schools, program extended to South Australia
December 1988	2775	
March 1989	1167	On-site media conferences to publicize vandalism problem. TV crews film repair teams at work. (Two thieves arrested in the following week after information from public)
June 1989	773	All public telephones in South Australia now target-hardened, mostly with wave doors
September 1989	1009	More media publicity. Eight citizens publicly presented with total A$1500 in rewards for information leading to apprehension of offenders
December 1989	1170	
March 1990	985	
June 1990	1106	Phonecard introduced, majority of public telephones converted for its use
September 1990	1112	

The data for recorded incidents of vandalism cover a 39-month period including the 20 months documented by Wilson (1990) in his analysis.

would not be expected to be instant. Rather, by emphasizing the community ownership of public telephones, the impact should be noticed in the long-term.

More organized attempts have been made to *encourage the public to report* any malfunctioning public telephones through the 1100 number. This has involved public pleas through the media and the dis-

tribution of pamphlets. Again, this action does not itself lead to a direct attack on the problem, but rather serves the purpose of allowing rapid repair.

Financial awards are available for presentation to members of the public who help identify offenders who have damaged public telephones. Although this is not widely publicized as a matter of course, the possibility of a reward is often mentioned by Telecom Australia representatives in media interviews and the like. It would be wrong to attribute any great impact to the granting of rewards, but it does alert the public to the problem in another way. Indeed, all media coverage of Telecom Australia's problem, and vandalism in general, sensitizes the public to the offense. That public awareness further complicates any analysis as it could help reduce vandalism by condemning it or increase it by encouraging copycat incidents.

All the activities discussed above have contributed in some way to the reduction of public telephone vandalism in Australia. Disentangling the effect of any one is impossible. *Table 1* uses the reasonably reliable statistics of vandalism for the South Australian-Northern Territory Region of Telecom to illustrate this point. Although the number of incidents shows a decrease from late 1988, the separate contribution of relevant activities listed in that table cannot be established.

Conclusions

Evaluation of crime prevention measures is bedeviled by the multiplicity and interplay of factors that could influence the prevalence of the crime under question. Retrospective evaluation provides an opportunity for, and should incorporate, discussion of all such factors. Providing an analysis of only some factors tells only some of the story and runs the risk of falsely elevating some factors to a status of crime preventers that they do not merit.

The recent analysis by Wilson (1990) of public telephone vandalism in Australia illustrates this proposition. The factors he identifies are certainly some of those that help explain why Telecom Australia now spends less than half what it used to spend 4 years ago to repair damage to its public telephone system. But there are a number of other important factors, the major one being the new, concentrated, professional approach to public telephone management that was adopted by Telecom Australia in creating the Payphones Division. That move unequivocally established the "owner" of the crime problem.

That professional approach involved physical target hardening and changing the payphone's physical environment. However, "caring" for the facilities has probably produced the more substantial and lasting result. Despite the improvement, Telecom Australia still has a problem with vandalism and thefts from public telephone coin boxes continue to be a sizable problem. Addressing those problems from a crime prevention perspective requires the collection of accurate and specific data on the "victimization" of public telephones. The new management team is collecting such data, and, hopefully, some prospective evaluation of preventive approaches may be possible in the future.

For the present, the reduction of costs in repairing damage to public telephones has been considerable. The Payphones Division itself put the problem in perspective. As a result of the initiatives outlined above, it says that in some areas "a public telephone which may have been damaged every day now lasts unscathed for at least nine days." It would be excellent if that rate of improvement could be maintained.

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