Watching the Watchmen

Using Technology to Protect The Right To Protest

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“Ain’t it a thing of beauty to see our folks up there ready to go.”
Contents

1 Introduction 2

2 The Changing Problem: Protest in the 21st Century 3
  2.1 A Case of Police Misconduct: The Miami Model 4
  2.2 Sousveillance Provides Accountability 5
  2.3 Critical Mass: How Video Makes The Difference 6
  2.4 Legal Observers 8
  2.5 i-Witness Video 9
  2.6 Wanted: A Practical Sousveillance Device for Everyone 9

3 Why Existing Sousveillance Solutions Are Inadequate 10
  3.1 Why Not A Smartphone? 10
  3.2 Why Not A Camcorder? 12

4 Proposal: The Personal Video Buffer 13
  4.1 Design Goals 13
  4.2 Proposed Design & Functionality 14
    4.2.1 The Post-Facto Record Function 15
    4.2.2 Auxiliary Functionality 16
    4.2.3 Other Uses 16
  4.3 Usage Scenario 16
  4.4 Is The PVB Legal? 18

5 The Legality of Sousveillance Technology 18
  5.1 Surreptitious Recording? 18
  5.2 Reasonable Expectation of Privacy 19
    5.2.1 Federal Laws 19
    5.2.2 State Laws 19
  5.3 Massachusetts: The Two-Party Consent Problem 20
  5.4 Court Rulings 21
    5.4.1 Black v. Codd 21
    5.4.2 Schiller v. City of New York 22
  5.5 Other Countries 22
  5.6 The PVB Is Legal 23

6 Conclusion 24

List of Figures

1 The Personal Video Buffer 25
1 Introduction

“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.”
– The First Amendment to the United States Constitution

In his landmark opinion on *Hague v. Committee for Industrial Organization*¹, Justice Roberts wrote,

“Wherever the title of streets and parks may rest, they have immemorially been held in trust for the use of the public and, time out of mind, have been used for purposes of assembly, communicating thoughts between citizens, and discussing public questions. Such use of the streets and public places has, from ancient times, been a part of the privileges, immunities, rights, and liberties of citizens.”

The Founding Fathers considered the right of the people to protest to be among the most fundamental rights accorded to mankind. The Constitution nearly failed ratification because the Antifederalist coalition was concerned that no codification of the rights of the citizenry was included, prompting the Federalist coalition to develop the Bill of Rights[Arc08].

The history of protest in the United States is one of triumphs and failures. From the suffragettes in the early twentieth century to the Civil Rights and Vietnam War protests in the '60s and '70s up to the modern-day protests against the war in Iraq, Americans have exercised their fundamental right to peaceably assemble. The results have varied from the horrifying brutality of the 1965 Selma march to the peaceful gay-rights demonstrations of 2008[Cam08].

With the increased emphasis on “homeland security” and the growing concern regarding terrorism, the right to protest has fallen by the wayside. In the past few years, law enforcement repression of peaceful protest has reached unprecedented levels[Gui08]. Organizations such as i-Witness Video and the National Lawyers Guild have fought back, and protestors have joined them. Using modern technology, they record the actions of both protestors and police and use the recordings to defend the protestors, both in court and in the media.
In an era where the civil rights abuses are routinely tolerated in the name of security, the old adage, “Who watches the watchmen?”, must take on a new meaning. Law enforcement must be held accountable for its actions to the people it is charged with protecting, and practical sousveillance technology is the way to achieve that accountability.

This paper demonstrates the value of sousveillance, or the recording of an activity from the perspective of a participant in that activity, as a means of protecting the First Amendment rights of United States demonstrators[Bri98].

Section 2 discusses the current state of police repression and demonstrates that holding the police accountable for misconduct by making their abuses as public as possible can be the means by which the right to protest can be protected, then goes on to argue that sousveillance can provide that accountability. Section 3 discusses current sousveillance solutions and demonstrates why they are inadequate to the needs of modern protestors. Section 4 proposes a hypothetical device, known as the Personal Video Buffer (PVB), that gives protestors the tools to easily and practically hold law enforcement accountable, while Section 5 makes the case for the legality of this device.

2 The Changing Problem: Protest in the 21st Century

The closing years of the twentieth century saw a decline in protests as the Cold War ended, yet the election of George W. Bush and the onset of the war in Iraq has precipitated an exponential increase in both the number and size of nationwide protests[Seg04].

The Internet has made it easier than ever for the average person to discover and participate in protests. Activist blogs and outreach sites can reach out to, inform, and organize hundreds of thousands of concerned individuals. As an example, consider the 2008 protests against California’s Proposition 8, which had the effect of banning gay marriage. The online group Join the Impact organized over a million protestors in 300 cities [Cam08].

This change comes at a time when concern about security is at a national high. Police departments are taking advantage of the public’s fear of terrorism and desire for security to justify an unprecedented response to protest activities. This change is best characterized by the collection of techniques known as the “Miami Model.”
2.1 A Case of Police Misconduct: The Miami Model

The “Miami Model” describes a collection of law enforcement and paramilitary techniques specifically intended to halt a protest as rapidly and decisively as possible. It was named after the response to the 2003 protests surrounding the Free Trade Areas of the Americas (FTAA) summit in Miami. Many cities now consider it to be the “model” for law enforcement response to mass protests. It is characterized by the following three aspects:[Get04][Sca03][HH05]

- Mass, sometimes pre-emptive, arrests of peaceful protestors
- Deployment of heavily-armed undercover agents who infiltrate the protest by disguising themselves as activists
- Police gathering “intelligence” about demonstrators prior to the protest

To make the job of the police easier, the Miami media and police department played on the national climate of fear to characterize the protestors as “anarchists, anarchists, anarchists.” There was talk of potential terrorist and WMD threats, which an independent review panel later concluded were “inappropriate.”[JR04] Prior to the event, the police also deployed extensive surveillance, targeting places “where marches typically occur.”[Zic07]

Jeremy Scahill, a journalist embedded within the FTAA protest, described the scene[Sca03]:

“The forces fired indiscriminately into crowds of unarmed protestors. Scores of people were hit with skin-piercing rubber bullets; thousands were gassed with an array of chemicals. On several occasions, police fired loud concussion grenades into the crowds. Police shocked people with electric tazers. Demonstrators were shot in the back as they retreated. One young guy’s apparent crime was holding his fingers in a peace sign in front of the troops. They shot him multiple times, including once in the stomach at point blank range. . . . Miami Mayor Manny Diaz called the police actions... ‘a model for homeland security’. FTAA officials called it extraordinary. Several cities sent law enforcement observers to the protests to study what some are now referring to as the ‘Miami Model.’ ”

Bill Dobbs, a spokesman for United for Peace and Justice2, remarked: “I don’t know what the goal is. I know the impact now is to chill dissent.”[Get04]
After the FTAA protests, the Miami-Dade Police Civilian Oversight Panel “strongly condemned” the actions of the police, stating that,

civil rights were trampled and the socio-political values we hold most dear were undermined. The right of every citizen to publicly proclaim their approval or disapproval for the actions of their elected leaders in a peaceful manner lies at the heart of what it means to be an American. The curtailment of that right is the first step from freedom towards bondage.

The “police mindset”, they wrote, was “to err, when in doubt, on the side of dramatic show of force to preempt violence rather than being subject to criticism for avoidable injury and destruction based on a reserved presence of police force.” Thus, in this situation the pressure on the police force was to avoid allowing protestors to “run rampant” by responding in a method that some might consider excessive.

When addressing how this situation might have been avoided, the panel stated, “The involvement of volunteer lawyers from the private sector or civil-liberty-focused organizations could have reduced the level of confrontation between police and demonstrators. That involvement could also have diminished the questionable dispersal orders or their execution.”[JR04] In other words, the panel concluded that when police officers are held accountable for their actions, incidents are less likely to occur. The question then becomes one of how the tools to provide this accountability may be put in the hands of as many people as possible.

2.2 Sousveillance Provides Accountability

The answer: videotape. Civil liberties organizations often encourage citizens to record the activities of the police. Though it concedes that it may result in an unjust arrest, the civil liberties website Flex Your Rights encourages the videotaping and photographing of police. The website states, “Video evidence is uniquely effective in exposing police misconduct. If you acquire video or photographic evidence that warrants an official investigation, create and secure copies of the evidence, then forward it to local police monitoring groups.”[Rig08] The organization Communities United Against Police Brutality also encourages those stopped by the police to “obtain a record of the encounter”[Bru08].
Some police departments have recognized the benefits of such evidence, even when their own officers are involved. The NYPD has instituted a program wherein citizens can upload videos of criminal activity, even police misconduct, to their website. “Soon citizen sleuths can transmit video evidence of criminal activity directly to the police and 911, including evidence of police misconduct,” writes Reuters[Reu08].

During the Republican National Convention in 2004, video evidence played a key role in exonerating over 400 bicycle-riding protestors unjustly arrested by the police. According to the Times, “A sprawling body of visual evidence, made possible by inexpensive, lightweight cameras in the hands of private citizens, provided evidence that they had not committed a crime or that the charges against them could not be proved, according to defense lawyers and prosecutors.”[Dwy05] Without such evidence, the legal fate of these peaceful demonstrators would have been in serious doubt.

Even with this evidence, there is still a risk. During the RNC protests, an individual named Alexander Dunlop was arrested and charged with “pushing his bike into a line of police officers” and resisting arrest. Through no fault of the police department, the technicians had made a mistake, altering the film taken by protestors. The mistake was only discovered after another version of the same tape was found. According to the Times, “the deleted parts of the tape show him calmly approaching the police line, and later submitting to arrest without apparent incident.”[Dwy05] While videotape made a critical contribution to this case, the fact that the police were capable of modifying (inadvertently or otherwise) the evidence points to the need for a better solution; one that will be presented in Section 4.

2.3 Critical Mass: How Video Makes The Difference

As another example, consider the case of Critical Mass rides. A Critical Mass ride is a peaceful method of demonstration wherein a large group of cyclists, often numbering in the hundreds, takes to the streets and travels in a group in an effort to raise awareness of cycling. Often these rides have other purposes, such as the political protests that have taken place during Republican and Democratic National Conventions for the last several years.[Mas08].

In many cases, these rides go by undisturbed, save for the honking of inconvenienced drivers (to
which the Critical Mass riders respond, “we don’t block traffic, we are traffic”[Mas08]). However, there have been many cases in which riders are harassed, detained, or even assaulted by the police.

On August 31 of 2007, a Critical Mass ride in Minneapolis was broken up by the police. Mass arrests took place, with the police employing tear gas, nightsticks, and tasers on unresisting bicyclists. Witnesses to this event said that “an unmarked maroon police car sped ahead of the others and smashed purposefully into a cyclist, spilling him onto the road who, in turn, took down another cyclist.”[Sny07] Anyone who asked questions was arrested. According to the Critical Mass website, “Those who were documenting the event with cameras or other recording devices were singled out and intimidated or arrested.”[Mas08] What makes this event remarkable, aside from the shocking level of brutality displayed, is that the only person charged with a crime was later exonerated through the use of video recording technology:

“Only one person, Gus Ganley, actually went to trial. He faced quite serious charges of Forcibly Resisting Arrest, Assault on an Officer and Fleeing Police.... During the trial, video and photographic evidence taken by other participants played a key role in making it obvious that the officers involved were lying about what had happened that day when they threw Gus to the ground.”

Despite the officers’ attempt to characterize Gus as a “dangerous anarchist”[Sca03], “the jury deliberated a little more than 5 minutes to come back with a verdict of Not Guilty on all of the charges Gus faced.”[Mas08] Video evidence had once more proved to be the critical in exonerating an innocent man.

As another example, consider the protests which took place in 2002 on the anniversary of the September 11 attacks in Washington, DC. According to a District of Columbia Law Review article on the subject,

“The M.P.D. has acknowledged that its officers herded over four hundred protestors into Pershing Park at 15th Street and Pennsylvania Avenue, N.W., then corralled and arrested them, as well as journalists, legal observers, and passersby caught in the police trap, including a Justice Department lawyer on his way to work. Those arrested were treated punitively by being kept handcuffed on buses for many hours, then held at various police facilities for another twenty hours or more, while handcuffed ankle to
opposite wrist." . . . “Later that day, ... Chief Ramsey responded: ‘Unless there is overwhelming evidence that an officer physically abused someone, I intend to give them all medals, not discipline, because they did a good job.’ ”[Tem04]

This quote exemplifies the problem: the Chief of Police and the leader of a protest group can look at exactly the same action - the violent arrest and detention of an innocent bystander - and see it in two entirely different ways. The difference is like night and day. Video evidence can make the difference in cases such as these, allowing a jury to make a fair decision based on something other than the word of those involved.

2.4 Legal Observers

The benefits of video and photographic evidence have also been recognized by the legal community. The National Lawyers’ Guild has instituted the Legal Observer Program to counteract instances of police misconduct. According to their training manual[Gui08], “Information gathered by our Legal Observers has contributed to an extremely successful track record in defending and advancing the rights of demonstrators, including in criminal trials.”

Legal Observers are lawyers and law students armed with cameras, audio recorders, and note-books. Wearing their trademark green headgear and armbands clearly identifying them as legal observers, their responsibility is to document the behavior of the police in a manner that can later be used in court.

While they have acknowledged the benefits of recording, the Legal Observers’ need to be aware of everything happening around them and to be ready to write down information or talk with police or protestors at a moment’s notice makes it difficult for them to hold a camera. Section 2.6 below addresses this issue.

Through the Legal Observer program, the NLG has been successful in securing the exoneration of protestors during the RNC. In doing so, they worked in conjunction with another group: i-Witness Video.
2.5 i-Witness Video

i-Witness Video is an organization dedicated to using video to protect civil liberties. On their website, they list their many successes, not the least of which is their high-profile role in the aforementioned exoneration of the cyclists arrested during the 2004 RNC[iW08b].

In the minds of the St. Paul police department, the i-Witness video crew posed enough of a threat to be worth pre-emptively arresting. During the 2008 RNC, the police department barricaded the crew inside their house. Eileen Clancy, one of the members of the crew, wrote,

“The house where I-Witness Video is staying in St. Paul has been surrounded by police. We have locked all the doors. We have been told that if we leave we will be detained. One of our people who was caught outside is being detained in handcuffs in front of the house. The police say that they are waiting to get a search warrant. More than a dozen police are wielding firearms, including one St. Paul officer with a long gun, which someone told me is an M-16.”[iW08b]

The important aspect of this incident is that the police were capable of shutting down the video-recording capability of the i-Witness crew by barricading them inside their house. If such capabilities were placed in the hands of anyone who wanted them and made as simple as possible to use, the power behind the principles of i-Witness Video could multiply exponentially.

2.6 Wanted: A Practical Sousveillance Device for Everyone

What can be learned from these examples? While video evidence taken with existing technology is an excellent tool for exonerating the innocent, the methods of obtaining this evidence can yet be improved. What is needed is a versatile, robust, and inexpensive video recording solution that allows the efficient capture of large amounts of video data in the simplest manner possible.

In other words, such a device must meet the following goals:

- To provide the ability to capture video and audio evidence to as many protestors as possible for as long as possible. The power of sousveillance increases with participation - the more protestors who possess the capability to capture evidence, the more likely it is that a
particular incident will be captured. The Minneapolis Critical Mass incident is an excellent example.

- **To be easy to use**, having “fire-and-forget” capability that allows the user to have their hands free for other activities. In the aforementioned examples, Critical Mass riders and Legal Observers have something in common: they both need their hands free. In a protest situation, minimizing the number of user decisions required to record an incident is a huge advantage.

- **To provide the ability to upload this evidence** to the Internet in a readily accessible form. i-Witness Video has been successful thus far, but their operation is a large one[Wi08b], requiring specific people dedicated to technical support. Having the capability to instantly upload protest videos to YouTube or a similar site would cut out the middleman and immensely widen the scope of participation.

Why is a new device necessary, one might ask? The following section explains the shortfalls of existing technology.

## 3 Why Existing Sousveillance Solutions Are Inadequate

A reasonable argument against the idea of constructing a new device is that existing solutions have worked well thus far. While this may be the case, current approaches possess weaknesses that may not be immediately obvious.

### 3.1 Why Not A Smartphone?

At first glance, the sousveillance needs of protestors could seemingly be met by a smartphone application, and indeed, there are many compelling reasons why this could be a good solution. After all, the market for smartphones is rapidly growing, and users would not need to carry a separate device. The advantages of this approach should not be overlooked; and indeed, smartphones may be the best hardware currently available.
However, implementing a sousveillance solution as a smartphone applications falls short in a number of critical areas:

- **Battery life.** Smartphones are inherently all-in-one devices, designed to accomplish many different tasks. This flexibility comes at a cost - battery life. The latest smartphones tout standby times measured in days and talk times measured in hours. However, recording video (capturing it with the camera, processing it in software, displaying it onscreen, and copying it to an external media card) is an extraordinarily demanding task on current smartphone hardware. Assuming that the user wishes to continue being able to receive calls while their phone is recording, this adds the burden of operating the cellular radio and underlying operating system on top of the primary recording task. Thus, recording times are measured in minutes rather than hours. When one considers the cost of smartphones and the fact that the vast majority of newer models have non-swappable proprietary batteries, running out of charge would effectively mean the end of the user’s participation in recording the protest.

- **Hardware limitations.** Encoding reasonable-quality video can max out the processor on a device without a video processor. Many lower-end smartphones are incapable of video recording; those that are suffer from the aforementioned battery problem.

- **Software limitations.** Many smartphones have video recording applications that are limited to 30 seconds. Other smartphones, such as the iPhone, have restrictive software environments that limit the capabilities of third-party applications.

- **Cost.** The cost of a smartphone application is small; however, it ignores the cost of acquiring a smartphone and paying for a contract. Should a protestor happen to possess an incompatible phone under a restrictive contract, they would be unable to record the protest.

- **Incompatibility.** A smartphone application developed for the iPhone is incompatible with one developed for Android, which in turn is incompatible with one developed for Symbian. While this situation may change in the future, it is another obstacle to widespread deployment of a smartphone sousveillance application.
3.2 Why Not A Camcorder?

Another approach, the one most commonly used today, is that of using a camcorder to record protests. This approach avoids many of the disadvantages mentioned above, yet still carries a number of its own. These include:

- **Battery life.** This is not nearly the problem it is with smartphones, yet camcorder batteries, especially on small camcorders, leave much to be desired in terms of longevity.

- **Delicate construction.** Protests can be very hectic situations, and a drop onto concrete will destroy most camcorders (and in many cases the media inside).

- **Bulky.** Many camcorders are bulky and require both hands to steady properly. Even those that are not bulky require the use of at least one hand to hold them properly - a severe disadvantage on a bicycle. (While helmet-mounted camcorders do exist, current models have very low battery life and are in many cases limited by their internal storage).

- **Cost.** Camcorders can be very expensive, often approaching the thousand-dollar mark. Not only can they break, but police often choose to confiscate such camcorders as “evidence” (a fact that would be true with any device, yet a protest organization can afford to lose a $100 device far more easily than a $600 one). Theft is another concern - carrying around an expensive camcorder in a situation wherein it may be ripped from one’s hands may rightly deter protestors from bringing it to a protest. The least effective sousveillance device is one that is left at home.

The PVB solution, discussed in the following section, is designed to remedy these disadvantages by being inexpensive, robust, and easy to produce, with a focus being placed on maximizing battery life. Additionally, the device is capable of being worn on the head or neck, thereby freeing up both hands.
4 Proposal: The Personal Video Buffer

The Personal Video Buffer, or PVB, is a proposed device intended to provide accountability to protestors by recording the actions of the police.

Note: The original Personal Video Buffer concept was conceived by David Sheets\textsuperscript{3}, and has since been developed and refined by himself, the author, and Steven Herbst\textsuperscript{4}.

4.1 Design Goals

In order to achieve the goals mentioned in section 2.6, the device must have the following properties:

- The device must be readily reproducible and as inexpensive as possible, allowing cash-strapped protestors and protest organizations to deploy as many as possible. Ideally, the cost would be kept under $100 in 2008 dollars; initial investigation indicates that this is entirely possible\cite{She08}.

- It must be obvious that the primary purpose of this device is recording. This is accomplished by the visibility of the head-mounted camera. Section 5 explains the legal rationale behind such visibility.

- The battery must be capable of powering the device throughout the course of a protest. It must also be capable of being replaced without interrupting the functionality of the device. Preliminary investigation has indicated that this is entirely within the realm of possibility - that the device can be powered for up to 12 hours on one charge \cite{She08}.

- It must be as simple as possible to use, allowing “fire-and-forget” operation. It must be capable of being triggered entirely by touch in the heat of a protest. Minimizing the number of decisions the user has to make is a major advantage of this design.

- The user must be able to trigger the device as rapidly as possible. This capability is fulfilled by the post-facto record function, which allows the user to trigger the device after an event has taken place.

- The user must be able to easily identify relevant portions of the video recording.
• If at all possible, the device must be capable of being used for other purposes, thereby giving
the occasional protestors an incentive to purchase one and become acquainted with its use.
This will also have the effect of increasing overall sales, driving the price down.

• The code for the device must be open-source, allowing the community to modify and extend
the functionality of the device. This has the effect of removing the dependency of the device
on a proprietary infrastructure - an advantage over a smartphone-based approach.

4.2 Proposed Design & Functionality

See Figure 1 on Page 25 for a block diagram.

The design of the device is kept as simple as possible. The user wears a camera/microphone unit
around their neck (similar to a necklace) or on their head (similar to a headlamp). Their inputs
are connected via a thin cable to a small, iPod-like device clipped to their belt. The belt device has
a slot for a flash memory card, a USB charging/sync port and two buttons. The device can also
be expanded with modules that allow communication via Bluetooth, WiFi, or cellular data. The
device contains a microprocessor, a GPS receiver, and fast flash memory. The device contains a
bay on either side for a cylindrical battery; the device is capable of continuous operation with only
one battery present, allowing the user to swap out batteries without interrupting the recording.

The camera and microphone are constantly active, recording to a five-minute ring buffer\(^5\) in
RAM. When the device is on, this ring buffer effectively maintains a constant record of the last five
minutes of the user’s audiovisual experience while keeping battery usage to an absolute minimum.

The first button, when pressed, activates the post-facto record function, described in section
4.2.1.

The second button activates whatever communication module is present. If the Bluetooth
module is present and is connected to a cellphone, this module is activated. Otherwise, if a WiFi
or cellular data module is present, this subsystem is used instead. The communication module
immediately begins transmitting the encrypted contents of flash memory over the air to a secure
server. This is referred to as the upload function.

The device can also be connected via USB to dump the recorded data to the user’s PC. The
device can be configured to upload recordings to YouTube or other video sharing sites, or to upload directly to a user's PC. This software functionality removes the need for a large backend infrastructure while still making such infrastructure possible if a large organization (such as i-Witness Video) wishes to construct one.

4.2.1 The Post-Facto Record Function

This function, when activated by a button press, begins dumping and encrypting the entire contents of the ring buffer to flash memory while continuing to record. This allows the user to make the post facto decision to record an event. In effect, the user gains the capability to choose what is relevant after it has already taken place. The recording is tagged with the GPS location and time. This is referred to as the post-facto record function.

Why is using a ring buffer desirable? The New York Times concisely states the problem: "Video is a useful source of evidence, but not an easy one to manage, because of the difficulties in finding a fleeting image in hundreds of hours of tape. Moreover, many of the tapes lack index and time markings, so cuts in the tape are not immediately apparent."[Dwy05] Using a ring buffer augments normal recording capability - where in a traditional setup, one might choose to begin recording after the start of an incident, a ring buffer provides a record of the five minutes before the start of that incident, thereby increasing flexibility. Furthermore, it takes much of the video editing work out of recording by providing a pre-cut clip, ready to post directly to YouTube. This functionality is not available on existing camcorders.

The ring buffer also has a distinct advantage over the constant capture of video: using it allows extremely low-power operation, since the contents are maintained entirely in RAM without having to be compressed or encoded, thereby putting far less of a drain on the processor and avoiding using up excessive amounts of storage space.

Note that the post-facto record function can be disabled if the user so chooses; in this mode, the system acts as a normal video camera (though with measurably higher battery consumption).
4.2.2 Auxiliary Functionality

A short video taken at webcam-quality occupies very little hard drive space - a minuscule amount compared to the size of modern memory cards. With the appropriate configuration, one could easily imagine “passive” PVBs that act as data dumps, listening over WiFi and saving any videos broadcast using the upload function, even sharing them with other passive PVBs. This would effectively create a mesh-network system of decentralized servers that would be extremely difficult for law enforcement to impound. While it is (in theory) against the law for them to do so, such devices are routinely seized and held as evidence when protestors are arrested or detained, and it is not uncommon for the retrieval of these devices to be an ordeal unto itself.

4.2.3 Other Uses

One advantage of the PVB is that it can be used for other purposes besides protest sousveillance. With no modification whatsoever, it can be used as an inexpensive device which takes the vast majority of the work out of capturing and uploading YouTube videos. One doesn’t have to sort through 100 takes of an extreme-sports video to find the one or two shots where the trick worked: one just has to hit the button after the fact. Why is this an advantage from a protest perspective? The average protestor spends only a tiny fraction of their time protesting - if the sole useful purpose of the PVB is protest-related, it is highly unlikely that most protestors would purchase such a device.

4.3 Usage Scenario

Let us consider a potential use case for such a device. Imagine a hypothetical Critical Mass bicycle protest, akin to those described above. This ride takes place in a major city where a political convention is taking place. This ride has been published ahead of time; the police are aware of its existence and are planning a Miami Model-esque response.

Ten of the riders, dispersed throughout the crowd, have clipped PVB video capture devices to their helmets. Unlike traditional solutions, these devices are entirely capable of being used while riding.
These devices are equipped with WiFi modules. Three additional riders have placed passive PVB devices in their belt packs; connected to their Internet-enabled cellphones, these devices are capable of instantly uploading data to the Internet.

The riders turn a corner and come face-to-face with the riot police! In the confusion, only a few riders manage to hit the record and upload buttons on their device, but that is enough. When the first rider is struck to the ground by a police baton, a PVB-wearing rider is watching, his camera picking up the entire scene.

In a traditional scenario, such a surprise would mean little time to retrieve, power on, and begin using a camcorder or cellphone. The PVB allows the riders in this scenario to take one simple action and then focus on an appropriate response rather than worrying about whether or not the event would be recorded. This maximizes both the chances that useful video will be obtained and the safety of the protestor.

Suddenly, the masked policemen deploy tear gas into the crowd. The riders begin to fall over, choking under the oppressive effects of the fumes. One of the riders near the edge is carrying a passive PVB, and he immediately begins pedaling away. His device, meanwhile, is busy dumping all the content from the protest onto a YouTube account, where his colleagues quickly sort through it. It takes them very little time to identify and flag the critical sections.

In a traditional scenario, the response time would be measured in days, not minutes. A camcorder-wielding protestor would likely be detained and his equipment seized for “evidence”. This is not a concern with a properly-utilized PVB setup.

Within minutes, a video showing peaceful bicyclists being brutally assaulted by police officers appears on the front page of YouTube. Needing something to break the monotony of the endless speeches, the major networks pick it up. Faced with the overwhelming evidence of the captured video, the police end up dropping the case against the arrested cyclists.

As seen in the previously mentioned RNC case, without the PVB approach, such evidence takes much longer to come to light. If the video evidence is impounded, there is a danger that it may not be seen at all. Moreover, in traditional approaches, the number of camera-bearing individuals is much smaller than that of PVB system.
This hypothetical case demonstrates some of the many ways in which the PVB system can provide effective sousveillance capability. It is important to note that, unlike a camcorder or smartphone, the users of this device interact with it only once during the protest - the rest happens automatically. Thus, the PVB fulfills the goal set out in Section 2.6: *a versatile, robust, and inexpensive video recording solution that allows the efficient capture of large amounts of video data in the simplest manner possible.*

4.4 Is The PVB Legal?

The fact that the PVB can be used to effectively obtain video evidence has been established, but this effort is for naught if either the device or the evidence obtained thereby is illegal. With that in mind, the following section will make the case that the device and its recordings are legal by reviewing extant legislation, both on the State and Federal levels.

5 The Legality of Sousveillance Technology

One commonly asked question about sousveillance is to what extent it is permitted by law. This section provides a review of the circumstances under which the use of an audiovisual sousveillance device is legal.

In order to legally use such a device to record the police, one must demonstrate three things: firstly, that the usage of the device does not constitute “surreptitious” recording and that it is not its “primary purpose,”; secondly, that the recordings made by this device in the public forum do not violate reasonable expectation of privacy; and finally, that it is legal to record the police in the performance of their duties.

The following section will make the case that such usage is legal by addressing each of these concerns.

5.1 Surreptitious Recording?

It is important to note that the vast majority of laws that prohibit videotaping of individuals without their consent specify that in order to be against the law such recording must have taken
place secretly. There can be no doubt that a recording device may be used in an illegal manner. The use of such a device in a context where those being filmed have a reasonable expectation of privacy, or the use of such a device in a covert manner, may violate the laws against “peeping Toms”[Rot00].

It is clear that the use of video recording in a protest context for sousveillance purposes does not constitute surreptitious recording. When in the “public forum”, the use of such a device is, in most cases, legal. Thus, in the vast majority of cases, concerns regarding protest sousveillance being surreptitious can be dismissed.

5.2 Reasonable Expectation of Privacy

5.2.1 Federal Laws

The relevant federal law is the Electronic Communications Privacy Act of 1986, 18 USC §2510. The legality of recording rests on §2510(2): “oral communication” means any oral communication uttered by a person exhibiting an expectation that such communication is not subject to interception under circumstances justifying such expectation.”

It is also worth noting that, should a state law disallow the recording of police action, 18 USC §2510 states, “Wiretap evidence obtained in violation of neither Constitution nor federal law is admissible in federal court, even though obtained in violation of consensual rule of state law.”

However, if the evidence obtained through such a device is to be used in federal court in any way whatsoever, it must be used openly. 18 USC §2515 states that no evidence obtained in violation of §2510 can be used as evidence in federal court.

5.2.2 State Laws

“The defendant is subject to liability under the rule stated in this Section only when he has intruded into a private place, or has otherwise invaded a private seclusion that the plaintiff has thrown about his person or affairs. Thus there is no liability ... for observing him or even taking his photograph while he is walking on the public highway, since he is not then in seclusion, and his appearance is public and open to the public
There are laws in every state governing the video recording of individuals. Called “stalking laws”, these contain language prohibiting the recording of individuals - but only when such individuals have a reasonable expectation of privacy [Rot00] [McC95]. Here are but a few examples supporting the legality of public recording.

In Missouri, for instance, the laws against video recording explicitly limits the expectation of privacy to areas where a person would “believe that she could disrobe without being concerned that the person’s undressing was being viewed, photographed or filmed by another.” (§565.250 R.S.Mo. (2008)) This explicitly excludes public areas.

In New Jersey, A.B. 3441 defines a private place as ”a place where a person may reasonably expect to be safe from intrusion or surveillance but does not include a place to which the public or a substantial group of the public has access.”

In California, Cal Civ Code §1708.8 (2008) section (b) states, “A person is liable for constructive invasion of privacy when the defendant attempts to capture, in a manner that is offensive to a reasonable person, any type of visual image, sound recording, or other physical impression of the plaintiff engaging in a personal or familial activity under circumstances in which the plaintiff had a reasonable expectation of privacy.”

According to the North Carolina Law Review, “Only one state has enacted a statute that explicitly regulates videotaping, and it is limited to conduct that occurs ‘in any private place and out of public view.’ ” [McC95].

5.3 Massachusetts: The Two-Party Consent Problem

In the case of Massachusetts, a state in which the wiretap laws require that both parties consent to a recording of the conversation, the question of the device’s legality rests far more strongly on whether the device is used “secretly.”

Commonwealth v. Hyde was a case in which the Massachusetts Supreme Judicial Court ruled that evidence obtained through secret recording of the police violated Massachusetts’ wiretap laws.
Speaking for the majority, Justice Greaney states,

Because our own statute broadly prohibits the interception of speech... whether the police officers possessed privacy interests in their words spoken in the course of performing their public duties, or whether the encounter constituted a routine traffic stop or a custodial interrogation, as argued by the defendant, are issues that we need not address.

As cited above, the relevant section of the law is Massachusetts General Laws 272 §99, which prohibits the “interception” of any wire or oral communication without the consent of both parties. However, “interception” is defined in §99(B)(4) as strictly referring to secret recordings.

The case of Jean v. Massachusetts State Police also makes it clear that to secretly videotape a police officer in the course of performing an arrest is an offence.

When the letter of the law is taken into consideration, the question of whether or not this statute pertains to public protest is not entirely clear. However, in an interview with attorney Ann Lambert of the ACLU of Massachusetts, she clarified the legality of sousveillance: it is entirely legal when it is made clear that a recording is taking place[AL08]. Thus, as long as the device is used in such a manner, it can be legally used in Massachusetts.

5.4 Court Rulings

5.4.1 Black v. Codd

The activist website i-Witness Video maintains a page entitled, “Are You Allowed To Take Pictures Of The Police?”[iW08a]. The page cites the Second District Court of New York’s trial ruling on the case Black v. Codd, arguing that videotaping the police is legal. The relevant section of the opinion reads,

“None of the following constitutes probable cause for arrest or detention of an onlooker unless the safety of officers or other persons is directly endangered or the officer reasonably believes they are endangered or the law is otherwise violated:
(a) Speech alone, even though crude and vulgar;
(b) Requesting and making notes of shield numbers or names of officers;
(c) **Taking photographs**;
(d) Remaining in the vicinity of the stop or arrest”

Thus, it is clear that the Court fully intended to define the public forum as an area in which photographs and video can legally be taken.

### 5.4.2 Schiller v. City of New York

In the case of *Schiller v. City of New York*, the Court ruled that videos taken by the NYPD of citizens being arrested in public could not be made confidential because, in the words of the Court,

“The City contends that the videotapes should remain confidential because they show individuals being arrested, and therefore "contain information that many of the individuals depicted . . . would regard as highly personal and private in nature.” This argument lacks merit because the demonstrations and arrests depicted on the videotapes took place in public, where they could have been witnessed by any passerby and taped by anyone with a video camera.”

Moreover, they specifically rule that “a visual recording of a mass demonstration in which numerous persons are taken into custody does not qualify as an ‘arrest record’,” and thus is not subject to law enforcement privilege.

### 5.5 Other Countries

It is worth touching briefly on the laws governing recording in other countries, though a full legal analysis is beyond the scope of this analysis.

Wiretap laws in other countries vary widely. Germany, for instance, is effectively a two-party consent state, while countries such as Canada and the United Kingdom are one-party consent. Like Massachusetts, however, the question rests on whether this device is used secretly; as long as it is openly used, countries which permit the use of video recording devices must allow its use.
5.6 The PVB Is Legal

The legal evidence presented thus far paints a clear picture. When in the context of a public protestor demonstration, it is perfectly within the rights of citizens to capture video and audio of the demonstration and of the police response to it. Moreover, as long as this evidence is legally obtained, it has the potential to be useful in exonerating the protestors in state or federal court.

However, there exist situations in which the use of the PVB may be questionable. As previously mentioned, the state of Massachusetts has a far stricter view of when the police may be recorded. However, this may not be the case for long: the ACLU of Massachusetts and the Massachusetts Bar Association are currently working to change the law in this area to make a specific exception for the recording of police when in the performance of their duties[HS08]. They expect to bring proposed legislation before the state legislature before the end of 2010[AL08].

In the meantime, however, the law’s consensus on overt public recording is clear: it is legal.
6 Conclusion

In his famed opinion on the landmark Supreme Court case, *Olmstead v. United States*\(^{11}\) Justice Brandeis wrote:

“In a government of laws, existence of the government will be imperiled if it fails to observe the law scrupulously. Our Government is the potent, the omnipresent teacher. For good or for ill, it teaches the whole people by its example. . . . If the Government becomes a lawbreaker, it breeds contempt for law; it invites every man to become a law unto himself; it invites anarchy. To declare that in the administration of the criminal law the end justifies the means . . . would bring terrible retribution. Against that pernicious doctrine this Court should resolutely set its face.”

When law enforcement breaks the law, it must be held accountable to those it is charged with protecting. If the agencies of law enforcement can no longer police themselves, if the watchmen can no longer watch themselves, it falls to the citizens to ensure that the fundamental rights enshrined in the First Amendment are protected.

If the right to protest is to be maintained, the protestors and organizations targeted by repressive tactics such as the Miami Model must evolve. Protest techniques of the twentieth century can no longer stand up to the hardened security and the climate of fear in this “post-9/11 world.”

Technology is the answer. In order to survive, activist organizations must make the twenty-first century media-driven culture work for them rather than against them. There is no better counter to the cry of “anarchists, anarchists, anarchists” than a video of a peaceful, unarmed demonstrator being crushed under the hooves of mounted police forces\[^{W08b}\]. When properly used, sousveillance technology can provide the critical force of evidence behind legal challenges to law enforcement’s rampant abuse of power and protect our civil liberties for future generations.
Figure 1: The Personal Video Buffer
Notes

2 http://www.unitedforpeace.org/article.php?list=type&type=16 UFPJ, a “coalition of over 1400 local and national groups”, is responsible for the two largest demonstrations against the Iraq war to date.
3 sheets@mit.edu
4 herbst@mit.edu
5 A ring buffer, or circular buffer, describes a data structure which “never” runs out of memory: when the recording reaches the end of the buffer, it begins overwriting the beginning.
7 Jean v. Massachusetts State Police, 492 F.3d 24; 2007 U.S. App. LEXIS 14813
8 Black v. Codd, 73 Civ. N.Y. 2d 5283, 1977
9 Schiller v. City of New York, 04 Civ. 7922 (KMK) (JCF), 04 Civ. 7921 (KMK) (JCF)
10 “The purpose of the law enforcement privilege is to prevent disclosure of law enforcement techniques and procedures, to preserve the confidentiality of sources, to protect witness[es] and law enforcement personnel, to safeguard the privacy of individuals involved in an investigation, and otherwise to prevent interference with an investigation.”
11 Olmstead v. United States, 277 U.S. 438, 48 S. Ct. 564, 72 L. Ed. 944 (1928)

References

[She08] David Sheets, personal communication, 2008.