Missing White House E-Mail: A Whistleblowing Case Study

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Abstract

Whistleblowing is a core topic for ethics courses taught to Computer Science and Computer Engineering majors. However, most of the prominent engineering whistleblowing cases have little if anything to do with computing (the Hughes Aircraft case being a notable exception). Another recent case is appropriate for study, especially given the increasing focus on e-mail privacy in the workplace. In early 2000, allegations surfaced that the White House was concealing e-mail that could have helped reveal, among other things, the extent of Vice President Gore's involvement in campaign fundraising controversies, and whether the Clinton administration had sold trade-mission seats in exchange for campaign contributions. The former chief of White House computer operations charged that Clinton administration officials were involved in an e-mail coverup. A Northrop Grumman contractor, Betty Lambuth, testified that she was threatened with loss of her job and other consequences if she disclosed the existence of the e-mail messages. This case raises several important issues, such as the responsibility of a contractor to its client vs. its responsibility to the public, and how much evidence of technical malfunctions should be needed before an organization (in this case, the White House) is obligated to inform other stakeholders.

1. Introduction

Whistleblowing is a topic of growing importance to students in all branches of engineering, including computer science and computer engineering. As Bowyer [24] has noted, whistleblowing is mentioned in all the major codes of ethics relevant to the computing profession, the IEEE code, the ACM code, the AITP Standards of Conduct, and the IEEE-CS/ACM Software Engineering Code of Ethics. However, most well known examples of whistleblowing hail from other fields, such as civil and mechanical engineering. A notable exception is the case of Ruth Aldred and Margaret Goodearl [24], who revealed fraud in the testing of chips made by Hughes Aircraft and used in a variety of sophisticated electronics systems, such as aircraft radar units. Another example is the case of missing White House e-mail.

The principals in this case were systems administrators and computer technicians under contract to the White House who discovered that e-mail was not being logged as it was supposed to be. It is particularly relevant to our students, since many if not most of them will install or administer e-mail systems at one time or another. Also, many of them will work under contract to other organizations, and therefore have to balance the interests of their employer, their clients, and the general public. The case came to light in early 2000, and though it did not become a major factor in the 2000 Presidential election campaign, it is quite well documented, with civil and criminal cases as well as dozens of articles in major newspapers. Since there does not seem to be another description of the case from start to finish, this paper will endeavor to provide one, followed by a discussion of the issues it raises for computer professionals.

2. Overview of the Case

The White House installed an Automated Records Management System (ARMS) to store all email correspondence in one central place, and make it easier to respond to document subpoenas. Due to a misconfiguration in the system, e-mail to about 500 White House officials was never recorded. E-mail was first discovered missing in January 1998, but the extent of the problem was not realized until later that year. Top White House officials were notified in June. Despite the fact that e-mail was being subpoenaed in a number of civil and criminal cases, including the Lewinsky affair and the Filegate scandal, the White House did not notify investigators that some of it was missing. In mid-February 2000, the ex-chief of White House computer operations, Sheryl Hall, came forward with allegations that Clinton administration officials were involved in an e-mail coverup. Soon afterwards, Betty Lambuth, working for a private employer under contract to the White House, charged that White House technicians had been threatened with loss of job, arrest, and jail if they revealed the problem. This led to a Congressional inquiry and a criminal investigation by the Justice Department.

3. The Cast of Characters

Whistleblowers

Sheryl Hall, former chief of White House Computer Operations, who was first to reveal the existence of messages that the White House claimed it could not retrieve.

Betty Lambuth, the Northrop Grumman contractor who became the main whistleblower.

Robert Haas, the White House system administrator, who corroborated Lambuth on some, but not all, of her testimony.

Yiman Salim, a computer specialist who was first to realize the extent of the problem.

Whisteblowers' manager

Steve Hawkins, Lambuth's Northrop Grumman boss, who reassigned her away from the White House.

White House personnel

Mark Lindsay, White House Office of Administration counsel, who allegedly threatened Lambuth.

Laura Crabtree Callahan, a branch chief for customer service computer support in the White House, who allegedly threatened Haas.

Beth Nolan, White House lawyer who defended the administration against Lambuth's allegations

Charles Ruff, White House Counsel when the e-mail problem was discovered.

Congressman

Dan Burton, Chairman of the House Government Reform committee, which held hearings on the matter.

4. The Revelations

In mid-February 2000, the ex-chief of White House computer operations, Sheryl Hall, went public with allegations that Clinton administration officials were involved in an e-mail coverup

[15]. She charged that e-mail messages written between August 1996 and November 1998 were intentionally made unavailable to both the Justice Department and Congressional investigators. The e-mail in question was from the White House computer system run and maintained by CEXEC, a subcontractor of Northrop Grumman. Shortly thereafter, on March 10, a CEXEC employee named Betty Lambuth claimed that she notified White House counsel of the glitch, and was threatened with jail if she told anyone else about it.

Hall and Lambuth engaged the services of Judicial Watch to represent them. Judicial Watch is a conservative "public-interest" law firm that was suing the White House over several matters on which the missing e-mail might have shed light.

Some of Lambuth's co-workers and White House officials characterized her testimony as inaccurate or overly dramatic [17]. White House system administrator Robert Haas, also a Northrop Grumman contractor, corroborated her recollection that some of the missing e-mail was related to the Monica Lewinsky affair [4]. However, he disputed her claim that e-mail related to other investigations was missing as well. Haas later denied he had any idea of what was in the lost e-mail messages [5, 6].

Lambuth said that the missing e-mail was related to the Lewinsky affair, Vice President Gore's involvement in campaign fundraising controversies [1, 2, 4], the alleged sale of seats on Commerce Department trade mission seats in exchange for political donations, and the White House's acquisition of FBI files on former GOP appointees in violation of privacy policies (the "Filegate" affair). The mail was lost at a time when Members of Congress, the Justice Department, and the Office of the Independent Counsel had issued subpoenas demanding all White House documents relevant to campaign fundraising, the Branch Davidian siege in Waco, and President Clinton's relationship with Monica Lewinsky [3].

The relevance of e-mail evidence had been established several years earlier in a case from the Iran-Contra scandal. Oliver North and John Poindexter unsuccessfully argued that their e-mail correspondence should not be admitted into evidence [26]. They had deleted their e-mail, but the messages were preserved on backup tapes—a situation strikingly similar to this case.

5. Discovery of the Problem

The first indication that e-mail tracking had gone awry came in January 1998, when lawyers asked Daniel Berry, a White House computer specialist, to search the server for e-mails related to Lewinsky [3], who was working at the Pentagon at that time. He found a lot of e-mail to Lewinsky, but almost none from her. In particular, he determined that e-mail from Lewinsky to a White House aide, Ashley Raines, had not been properly recorded on the server [5].

Betty Lambuth said that she learned of the problem in May 1998 in midst of Independent Counsel Kenneth Starr's probe of the Lewinsky scandal [1]. She informed White House officials that a computer glitch had prevented some 100,000 e-mails from being processed through ARMS. As a Harvard Law School case study [15] put it, "Ironically, this system's specific purpose was to enable the White House to store all e-mail correspondence in one central place, and thus to enable the White House's to respond to document subpoenas" by doing a text search through a single database.

Soon afterwards, Yiman Salim, another specialist, noticed a similar glitch and determined that the problem was widespread [3]. It was found that no incoming e-mail received by about 500 White House officials, including many high-ranking personnel, was being picked up by ARMS [5, 7].

When the extent of the problem was discovered in at the height of the Lewinsky furor in June 1998 [4], top White House officials learned of it almost immediately. On June 18, the President's assistant for management and administration wrote a memo to Deputy Chief of Staff John Podesta describing the problem [5]. White House Counsel Charles Ruff was also notified. The first press mention was by the conservative newsmagazine *Insight on the News* in December 1998 [1, 2, 20]. In two successive issues, it wrote of a "Project X"—a highly secret program to reconstruct tens of thousands of e-mails that a computer contractor had discovered missing in or around June of that year [10, 20].

Indeed, efforts were being made to resolve the problem. A February 1999 memo from Karl Heissner, of the White House Office of Administration, gave a set of "talking points" for testimony, in case the issue was raised in Congressional budget hearings [12, 17]. Heissner's memo said the White House solicited a proposal from Northrop Grumman in October 1998 to "recover the missing records." [12, 13]. However, retrieval did not start until 2000 [12, 13].

Why did the White House wait more than a year before telling Congress? According to the Heissner memo, they were reluctant to say anything because requests for official documents, both from lawmakers and "litigants against the government" were declining [12, 17]. "We may not want to call attention to the issue," he wrote, and concluded, "Let sleeping dogs lie" [17].

Most of the technicians who knew about the problem initially believed the White House wanted to keep the problem under wraps until officials determined its scope, but Lambuth soon changed her mind [3, 17]. "There was a definite stalling, a delay," she testified. "Every time I asked what was going to happen on this, where we were going, I could get no answers" [3]. "I quickly came to the conclusion that the Clinton White House had no intention of fixing the problem" [17].

6. What Caused the Problem

Beginning in August 1996, ARMS failed to archive e-mail from one server that spooled e-mail to much of the White House staff (500 individuals) [1, 4]. This could have affected subpoenaed mail coming in from outside organizations, such as the Democratic National Committee, which was wanted in connection with fundraising investigations [17].* Technicians inadvertently capitalized the name of the server designed to archive messages (by calling it "MAIL2" instead of "mail2"), effectively sending them to a storage server that didn't exist [3, 15]. They also dropped accounts for people whose last names began with "D"—which went unnoticed because "J" accounts were filed twice [15]. The problem was fully corrected by November 1998 [3, 4].

(This was relevant to the investigation because government property, such as the White House, is not supposed to be used for fundraising purposes.)

^{*} In fact, once mail was finally recovered from backup tapes in September 2000, among the first messages were communications that showed senior Gore aides routinely characterized White House coffee sessions as fundraising events, seemingly contradicting Gore's remarks about the coffees to federal investigators earlier in the year [19].

But White House lawyer Beth Nolan claimed that it recurred on a smaller scale. She said that another flaw may have prevented storage of incoming e-mail to 200 accounts between November 1998 and May 1999 [3, 6].

In addition, another problem caused e-mail from and to Vice President Gore and his staff to go unrecorded—and it was therefore never reviewed to determine if it was relevant to investigations of Democratic fundraising abuses in 1996 [6]. The first problem affected only incoming e-mail, but this flaw affected any e-mail to or from some top officials, including Gore, from 1994 until March 2000 [6]. There is no indication that Gore knew of the problem [7], but according to Lambuth, at least one high-level official in his office knew that his e-mail was not being properly "records-managed" [16]. A White House memo from September 4, 1998 showed that computer officials were aware of problems "regarding OVP [Office of the Vice President] e-mail and records management" [3].

7. The Alleged Coverup

Several workers complained that they were threatened when they mentioned the missing e-mail. Sheryl Hall, the former chief of computer operations, was the first to make this charge. "[W]hen the contractors told the White House about the problem, they were threatened, warned not to discuss it," she wrote in a declaration. "They were told the documents were classified" [1, 2, 15].

At the Congressional hearings, employees told of being summoned to a meeting in June 1998 after Salim reported the problem to her boss [3]. Salim and four other Northrop Grumman contractors were called into the office of Laura Crabtree, who was a branch chief for computer support in the White House, and a career civil servant [7]. Mark Lindsay, counsel for the White House Office of Administration, was present by speakerphone. Three of those employees, Robert Haas, Betty Lambuth, and Sandra Golas, testified that Lindsay told them to fix the problem, but said they could be fired or arrested if they discussed it with anyone, including their Northrop Grumman manager Steve Hawkins. These threats were made in June 1998, amid the furor of Lewinsky case [5]. Lambuth said that Lindsay told her "that if I or any of my team who knew about the e-mail problem told anyone else about it we would lose our jobs, be arrested and put in jail" [1, 2]. She said this threat was issued on more than one occasion. Implicit was that she would lose security clearance, and thus her ability to work in Washington [3].

Robert Haas said he flippantly asked what would happen if he told his wife. "Miss Crabtree," he said, "responded that there would be a jail cell with my name on it" [3].

However, the other two contract employees at the meeting did not recall any mention of jail [6]. For her part, Salim remembered being warned, but not feeling threatened in any way [3]. Lindsay and Laura Crabtree Callahan (she had since married) said they couldn't remember the conference [3]. Both said they never threatened anyone [3, 4]. To Haas's allegation, Callahan retorted, "He may be either having a bad recollection or having an overactive imagination with regard to having the threat being made to him" [7].

Lindsay and Callahan admitted they asked contract staffers not to discuss computer problems [7]. Lindsay put it this way: "I did say that this was a matter that needed to be kept in bounds with

these people who needed the information to repair the system." He added that he didn't want to hear of any "water-cooler talk" while the White House was under investigation for several matters.

But the computer staffers saw it differently. All who testified before the House panel on March 23, 2000 said that the White House wanted to keep the problem a secret, even though it was technical in nature. Their manager Hawkins said that some of them felt so threatened by their meeting with Callahan and Linsday that they requested legal counsel [7]. "They did try to cover up the fact that they had a computer glitch," he told the committee [3].

Reflecting the secrecy, Lambuth and her colleagues called the effort to fix the problem "Project X" [1], and held a series of furtive technical meetings in Lafayette Park, across the street from the White House, and in a nearby Starbucks [1, 2, 3].

Haas said he did search the "e-mail accounts" of several White House aides to determine whether messages from Lewinsky had missed being archived [5]. He found numerous such messages, but White House officials said all of them had already been discovered and turned over to Independent Counsel Kenneth Starr [5].

The Justice Department responded to the hearings by immediately launching a criminal investigation of the White House's actions. At issue was the White House's response when officials learned in 1998 that an archive had not been kept. "The core of this is we may have subpoenas issued that were not fully complied with and people who may have been threatened with retaliation to hide it," said a Justice Department official. "It's not the kind of thing you should take lightly. And we don't" [6].

Later, the White House briefly raised the possibility of using executive privilege to sidetrack a further investigation into the missing e-mail. On May 2, 2000, they sent the House Government Reform Committee a one-page list of documents that they declined to turn over because of executive privilege. Among them were discussions between White House lawyers and computer staffers, which were said to fall under attorney-client privilege [13]. After Chairman Burton dashed off an angry reply, the White House backed down the next day and turned over the documents sought by the committee [14].

8. The White House Defense

The White House vigorously defended itself against the charges that lost e-mail was used to obstruct investigations by Congress and the Independent Counsel. Their rebuttals can be summarized in five points.

(i) They didn't understand the scope of the problem. White House lawyer Beth Nolan said at Congressional hearing that the White House Counsel's office thought the problem was fixed, and hadn't understood the scope and possible effect on e-mail record searches until recently. She said that chief Counsel Ruff wrongly believed that the computer problems in retrieving e-mail had been corrected, and that all steps had been taken to make a complete search [6]. Since they believed that the administration's response to subpoenas had not been affected, they were not "covering up" a problem, she added [5].

"White House officials blamed a 'disconnect' between their technicians, who diagnosed the email problem, and their lawyers, who apparently did not understand that the glitch might affect pending subpoena requests" [12, 14, 15].

- (ii) They provided a lot of subpoenaed information anyway. Although widespread computer problems kept Gore's office from furnishing thousands of e-mail messages in response to subpoenas about 1996 fundraising efforts, Nolan told the Congressional inquiry, they did furnish "approximately 7700 pages of e-mail records related to campaign finance matters" [4]. A skeptic might question, however, if what was furnished omitted important information. Since no one knew what was in the missing e-mail, it would not be possible to answer this question.
- (iii) A test indicated that not much had been lost. Ruff testified in May 2000 that he was aware when first briefed in June 1998 that the loss could affect the administration's compliance with outstanding subpoenas [17]. He said he immediately ordered an effort to recapture a limited number of messages on the Lewinsky case to see if new material would turn up. However, this produced only e-mail messages that duplicated those already furnished to Independent Counsel Ken Starr. Because of that, he didn't consider the loss serious. He added that he didn't realize that the e-mail storage problem was more widespread, affecting other investigations, like that on campaign fundraising.

The House Committee asked who was in charge of his test effort, and Ruff said he couldn't recall [17]. The committee majority was incredulous. They wanted to question that person.

- (iv) It would be too expensive to go back and retrieve everything. White House spokesman Jim Kennedy said it would not be reasonable, given the time and expense, to search every individual hard drive and backup tape that might be covered by a subpoena [9]. He noted that a White House lawyer had made the same point two years earlier in an investigation by another independent counsel: "The White House cannot, as a practical matter, perform across-the-board searches of computer files" because "the burdens involved … are enormous," especially when the files have been archived. In that case, the independent counsel had settled for a computer file search of just two White House aides.
- (v) Lindsay told the House panel that the problem was one of many with the e-mail system, and was not given priority because of Y2K compliance testing [7]. When the extent of the problem was discovered, he was in charge of ensuring that White House computers were Y2K compliant.

These arguments, however, did not impress committee Republicans. Lawmakers complained that even after senior White House officials learned of the problem, they didn't notify Congressional committees about potential gaps in the records they were turning over [6]. Chairman Burton said, "The big deal is not that a computer technician made a mistake. The big deal is how the White House reacted to it" [7]. "They basically had 2 choices ... face up to the problem, or throw a blanket over it and hope nobody found out [5] ... It's pretty clear that if we didn't find out about this problem independently, we were never going to be told by the White House" [6, 7]. In their report, the majority compares the missing e-mail to the infamous 18½-minute gap on one of the Watergate tapes [19].

9. Was Any Evidence Destroyed?

Throughout the investigation, the White House's adversaries were suspicious that evidence had been, was being, or would soon be destroyed. Their suspicions were fueled by release of a White House memorandum showing that White House technicians were asked to delete old e-mail messages that had been sent to Sidney Blumenthal, a combative and controversial White House aide, before early 1999 [14]. The request "is still being mulled by senior management and OA Office Administration Counsel," wrote computer specialist Daniel Berry in a January 6, 1999 memorandum. (Berry, as you may recall, is the same staffer who first noticed the missing e-mail.) At the time of the request, Congress was preparing for the President's impeachment trial, which began on January 14, 1999.

In a March 2000 affidavit, Sheryl Hall said that a White House staffer told her that there were plans to destroy the C-drive tapes made of aides' hard disks when they left the White House and stop making any more [2, 9, 15]. These would have included the tapes from Linda Tripp, William Kennedy III, and Bernard Nussbaum, the last two of whom were involved in Filegate [9]. Michael Lyle, director of the White House Office of Administration, said that there was no plan to do so, though it might have been "discussed" at a meeting about what to do with them. They were in a vault with highly secure locks, he added. U. S. District Judge Royce Lamberth ordered that they not be destroyed [2, 15].

However, most of those who testified at the Congressional hearing did not believe that the White House actually caused e-mail to be lost, nor did anyone claim that the White House told them to destroy e-mail [3, 7]. "We didn't know enough about what was going on to say that the White House was obstructing anything," said John Spriggs, a senior Northrop Grumman engineer.

Then in early May, Betty Lambuth charged that six months worth of the missing e-mail was erased and is likely lost forever, even though the White House knew that it was effectively destroying evidence [16]. At that point, though, no evidence had been adduced that the missing e-mail contained crucial information that had not been obtained from other sources [17]. In October, the House Government Reform Committee majority report claimed that approximately one year of e-mail records from Vice President Gore's office were "lost forever" [19].

10. Retrieving the Missing Messages

Initially, the White House estimated that it would cost \$3 million and take up to two years to retrieve and review the lost e-mail messages [3, 6]. Later the numbers were reduced to \$2.3 million and 211 days (a CNN report [7] noted that this would still be after the November election). However, experts from Ontrack data told Judge Lamberth in July that they could restore it 25 times faster [18]. White House officials were saying it was taking their experts about 50 hours to copy each tape. They said this would make it impossible to comply with the promises that White House lawyers had made to submit all subpoenaed messages to investigating agencies by late September.

Michael Norby, the Ontrack specialist who copied the tapes, said he thought that settings had been "intentionally altered" to make them run slower [18]. But Craig Ekberg, whose company was monitoring the copying of the tapes by the White House denied they had been doctored, and

said that copying speeds varied with the age of the tape. When the White House contractor switched to the Ontrack method, Ekberg said, they were then able to copy a tape in about 4 hours 50 minutes. Judicial Watch chairman Larry Klayman derided the sudden improvement in copying speed and said it was one more sign of a continuing pattern of "obfuscation, misstatements, and at times out-and-out lies" that had hobbled his Filegate lawsuit since it was filed in 1996.

11. The Aftermath

The missing White House e-mail disappeared from the news in October 2000, just as completely as it had disappeared from the archives. More recent information seems to be available only from the Judicial Watch Web site. A November 6, 2000 press release [21] reports that "a Northrop Grumman official, Joseph Vasta, testified on Friday that the Clinton-Gore White House intimidated the e-mail contractor, Northrop Grumman, into participating in the e-mail cover-up. Vasta testified that it was made apparent that Northrop Grumman could lose its \$50-million contract if it didn't play ball with the Clinton-Gore White House." Later press releases [22, 23] report that Judge Lamberth personally inspected and oversaw the transfer of the e-mail backup tapes from the White House to the National Archives in the final days of the Clinton administration. Since e-mail evidence is important to many cases involving Clinton administration officials that are still in the courts, we probably have not yet seen the end of this story.

In most cases, whistleblowers pay a heavy price for their actions. Most of them lose their jobs. That did not happen to either of the main whistleblowers in this case. Lambuth was transferred by CEXEC to a project outside the White House. Her manager Steve Hawkins removed her after he sensed there was a major problem with his White House staffers, but she refused to tell him what it was [2, 3]. However, she was not happy about her change in responsibilities: "Lindsay and others on the Clinton White House staff who knew why I wasn't telling Hawkins about the e-mail problem never intervened with Hawkins to protect my job," she said in the court papers when she became a whistleblower [2].

Sheryl Hall left the White House on Sept. 10, 1999 to begin a comparable job with the Bureau of Alcohol, Tobacco, and Firearms, where she supervised computer support for approximately 5000 users. In May 2001, she became the first woman elected Chair in the 65-year history of the White House Federal Credit Union. The credit union is the "bank" of former and current White House career and political staffers. Hall left the White House claiming she was told to use the White House Office Database for political purposes. She is pursuing several legal actions against Sen. Hillary Clinton for retaliation she says she suffered for refusing to work on that project.

It seems that the whistleblowers in this case were insulated from the worst forms of retaliation because they did not "blow the whistle" until they had already left their jobs. Their claims were also investigated much more promptly than usual—within six weeks, a Congressional hearing was held and a criminal investigation commenced. This probably has a lot to do with the fact that they went public in an election year when the opposition party was in control of Congress. Nonetheless, nearly three years later, none of the alleged perpetrators have been sanctioned in any way.

12. How This Case Can Be Used

This case is a good one for discussion because it raises a number of interesting ethical questions, such as the following.

Questions related to whistleblowing

- Did Betty Lambuth have an ethical duty to tell her boss, Steve Hawkins, that the White House did not seem willing to fix the problem that kept the e-mails from being searched?
- On the other hand ... The contractors undoubtedly signed a nondisclosure agreement, which pledged them not to reveal any nonpublic information they encountered while in the White House. In private industry, the purpose of nondisclosure agreements is often to protect trade secrets. In the White House, the agreements could be expected to protect information that was politically sensitive or related to national security. Contractors were obligated not to reveal such information unless they had the right to do so, regardless of whether the other party had the right to know. Would Lambuth have violated these obligations by telling her boss of the problem?
- Do contract employees have an ethical duty to their employer to "keep their mouths shut" in situations like this, where revealing information will create an organizational conflict of interest that may disqualify their employer from competing for future contracts? In other words, if Northrop Grumman employees "opened their big mouths" about this problem, wouldn't they be placing their co-workers' jobs in jeopardy?
- In view of the large number of investigations that were potentially being impeded by the missing e-mail, should Lambuth and Hall have gone public sooner, even if it might have cost them their jobs? Or was it a reasonable tradeoff to wait until they were "out of the line of fire"?
- White House counsel Mark Lindsay told the contractors to fix the problem, but keep their mouths shut about it. Was this good advice for the contractors to follow, given that they did not understand the ramifications of revealing the existence of the problem? Should any would-be whistleblower follow this advice, as long as management seems willing to pursue a solution?

Questions related to impact

- What does it mean that 500 top White House aides' mail was not logged? How many White House employees had email accounts at the time? [15]
- Is the real issue here programming error or White House trickery? [15]

Questions related to e-mail evidence

- Did the White House have an ethical duty to tell law-enforcement officials and Congressional committees about the discovery of e-mail that was missing? If so, when did this duty arise?
- Was it justifiable for the White House to skip the extra effort required to archive the missing e-mail, given the large number of documents they had already turned over to

- Given that it takes almost unlimited time to reconstruct voluminous records, is there a limit to the effort that should be required? Does your answer to this question depend on how interested Congressional committees seemed in this information? (Recall Heissner's observation that requests for this information were declining.)
- Are there any essential differences between the legal and ethical issues regarding discovery, document preservation, shredding, etc., in the largely pre-electronic and present ages? [15]

Questions related to privacy

- If e-mail is like postal mail, shouldn't it be private? Then is it ethical to log it?
- Back during the Nixon administration, all conversations in the Oval Office and other locations in the White House, as well as telephone conversations were recorded without the knowledge of most participants. Not only was this shortsighted from a political point of view, since it led to the downfall of the Nixon presidency, but it was criticized as being an invasion of privacy of the participants. Does the same issue arise with regard to the logging of e-mail sent to and from the White House?
- More and more companies are monitoring employees' use of e-mail. According to a 2001 American Management Association survey [25], about 77% of large companies monitor employees' electronic activities, such as e-mail and Web usage. Should employees be allowed to use their work e-mail accounts for personal purposes? Should employers be allowed to use techniques such as keystroke monitoring to observe how they might use Web-based personal e-mail accounts from their employer's computers?

Questions related to politics

- Is it possible that these charges were just "politics as usual" from Republicans jockeying for a winning position in the 2000 election campaign?
- In politics, whatever side you are on, you will hear credible allegations of "dirty tricks" by the other side. It may even be that one cannot win an election without engaging in dirty trickery. If you were a computer professional serving a public official or candidate for office, would you participate in such operations? Should you?

I have used this case twice in my class, both times in electronic discussions (my class is Web based). When I first used the case, I had some concern that it would be seen as too partisan for students to discuss the issues without being distracted by the politics. I am happy to say that this has not been a problem. Students seem happy to discuss the issues as they relate to handling of electronic evidence, without focusing on what the evidence might contain.

The case would also be suitable for classroom discussion. Role-playing exercises based on some of the meetings would be valuable, e.g., the 1998 meeting between the contract employees, Lindsay, and Crabtree Callahan; the technical meetings that took place in the park, or Congressional committee meetings. It could also be used in a unit studying the role of the consultant, or the system administrator.

In summary, the case of missing White House e-mail is unusually à propos as an example of whistleblowing. It deals with events that are current, still being played out in the courts. Many of our students will be in positions of installing or administering e-mail systems, where they may confront many of the same issues that faced Lambuth and Hall. This case has a lot to teach us, and can be quite valuable to an ethics or professionalism course.

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