SILICON TECHTRONICS EMPLOYEE ADMITS FAKING SOFTWARE TESTS

ELECTRONIC MAIL MESSAGES REVEAL NEW DETAILS IN 'KILLER ROBOT' CASE

ASSOCIATION OF COMPUTER SCIENTISTS LAUNCHES INVESTIGATION INTO ETHICS CODE VIOLATIONS

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by Mabel Muckraker

Cindy Yardley, a software tester at Silicon Techtronics, admitted today that she was the person who created the fraudulent "killer robot" software tests. The fraudulent tests were revealed earlier this week by Silicon Valley University professor Wesley Silber in what has come to be known as the "Silber Report".

At issue are quality assurance procedures that were performed on the program code written by Randy Samuels, the programmer charged with manslaughter in the killer robot incident. The Silber Report asserted that the test results reflected in internal Silicon Techtronics documents were inconsistent with the test results obtained when the actual killer robot code was tested.

In a startling development at noontime yesterday, Max Worthington, Chief Security Officer for Silicon Techtronics, announced his resignation at a packed news conference that was broadcast live by CNN and other news organizations.

Worthington stunned the assembled reporters when he began his news conference with the announcement, "I am Martha."

Worthington described his responsibilities at Silicon Techtronics in this way: "Basically, my job was to protect Silicon Techtronics from all enemies - domestic and foreign. By foreign I mean adversaries from outside the corporation. My role was mostly managerial. Those working under me had many responsibilities, including protecting the physical plant, watching out for industrial spying and even sabotage. I was also responsible for keeping an eye out for employees who might be abusing drugs or who might be disloyal in some way to Silicon Techtronics."

Worthington then pointed to a stack of bound volumes which were on a table to his left. "These volumes represent just some of the electronic surveillance of employees that I conducted over the years for my superior, Mr. Waterson. These are print outs of electronic mail messages that Silicon Techtronics employees sent to one another and to persons at other sites. I can say with great certainly that no employee was ever told that this kind of electronic surveillance was being conducted. However, I think the evidence shows that some employees suspected that this might be going on."

Several reporters shouted questions asking who at Silicon Techtronics knew about the electronic surveillance.
Worthington replied, "No one knew about this except Mr. Waterson, myself, and one of my assistants, who was responsible for conducting the actual monitoring. My assistant produced a special report,

summarizing e-mail [electronic mail] activity once a week, and that report was for Waterson's eyes and my eyes, only. Upon request, my assistant could produce a more detailed accounting of electronic communications."

Worthington explained that he was making the electronic mail transcripts available to the press because he wanted the whole truth to come out concerning Silicon Techtronics and the killer robot incident.

The electronic mail messages between employees at Silicon Techtronics indeed revealed new facets of the case. A message from Cindy Yardley to Robotics Division Chief Ray Johnson indicates that she faked the test results at his request. Here is the text of that message:

```
To:      ray.johnson
From: cindy.yardlay

Re:      samuels software

I have finished creating the
software  test  results  for
that     troublesome    robot
software, as per your idea of
using  a  simulation  rather
than  the  actual  software.
Attached  you  will  find the
modified    test   document,
showing    the    successful
simulation.

Should  we  tell  Randy about
this?

   - Cindy
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Johnson's response to Yardley's message suggests that he suspected that electronic mail might not be secure:

```
In-reply-to:  cindy.yardley
From:         ray.johnson

Re:      samuel's software

I knew I could count on you!
I am sure that your devotion
to  Silicon  Techtronics will
be repaid in full.

Please use a more secure form
of   communication   in   the
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future when discussing this
matter.   I  assure you that
the way we handled this was
completely above board, but I
have my enemies here at good
ol' SiliTech.

   - Ray
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These communications were exchanged just a few days before the Robbie CX30 robot was shipped out to Cybernetics, Inc. This fact is important because the fake software tests were not part of a cover-up of the killer robot incident. These facts seem to indicate that the purpose of the fake software tests was to make sure that the Robbie CX30 robot was delivered to Cybernetics by a deadline that was negotiated between Silicon Techtronics and Cybernetics.

The electronic mail transcripts reveal repeated messages from Ray Johnson to various people to the effect that the Robotics Division would definitely be closed down if the Robbie CX30 project was not completed on time. In one message, he lectures project leader, Sam Reynolds, on his "Ivory Snow Theory":

```
To:      sam.reynolds
From: ray.johnson

Re:             don't  be  a
perfectionist!

Sam:

You   and   I   have   had   our
differences,  but  I  must  tell
you    that    I    like    you
personally.         Please
understand that everything I
am doing is for the purpose
of SAVING YOUR JOB AND THE
JOB  OF  EVERYONE  IN  THIS
DIVISION.    I  view you and
all  of  the  people who work
with  me  in  the  Robotics
Division as my family.

Waterson  has  made  it  clear:
he  wants  the  robot  project
completed   on   time.    That's
the  bottom  line.    Thus,  we
have  no  recourse  but  "Ivory
Snow".    You know what I mean
by that.    It doesn't have to
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be     perfect.       The     user
interface is our fall back if
this version of the robot
software has some flaws.  The
robot  operator  will  be  safe
because the operator will be
able  to  abort  any  robot
motion at any time.

I  agree  with  you  that  the
non-functional   requirements
are  too  vague  in  places.
Ideally,     if     this     weren't
crunch time, it would be good
to  quantify  the  amount  of
time    it    would    take    the
operator to stop the robot in
case     of     an     accident.
However,         we         cannot
renegotiate  those  now.    Nor,
do we have time to design new
tests for new, more precise
non-functional requirements.

I  cannot  emphasize  enough
that  this  is  crunch  time.
It's no sweat off Waterson's
back  if  he  lops  off  the
entire     Robotics     Division.
His  Wall  Street  friends  will
just  say,  "Congratulations!"
You  see,  to  Waterson,  we  are
not  a  family,  we  are  just
corporate fat.

   - Ray
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In this message, Ray Johnson seems to be less concered with the security of communicating by electronic mail.

The Silicon-Observer interviewed Cindy Yardley at her home yesterday evening. Neither Ray Johnson nor Sam Reynolds could be reached for comment.

Ms. Yardley was obviously upset that her private electronic mail messages had been released to the press. "I am relieved in some ways. I felt tremendous guilt when that guy was killed by a robot that I helped to produce. Tremendous guilt."

The Silicon-Observer asked Ms. Yardley whether she felt that she had made an ethical choice in agreeing to fake the software test results. She responded with great emotion: "Nothing, nothing in my experience or

background prepared me for something like this. I studied computer science at a major university and they taught me about software testing, but they never told me that someone with power over me might ask me to produce a fake software test!"

"When Johnson asked me to do this, he called me to his office, as if to show me the trappings of power, you see, someday I would like to be in a managerial position. I sat down in his office and he came right out and said, 'I want you to fake the test results on that Samuels software. I don't want Reynolds to know anything about this.'"

Yardley fought back tears. "He assured me that no one would probably ever see the test results because the robot was perfectly safe. It was just an internal matter, a matter of cleanliness, in case anyone at Cybernetics or higher up in the corporation got curious about our test results. I asked him whether he was sure about the robot being safe and all that and he said, 'It's safe! The user interface is our line of defense. In about six months we can issue a second version of the robotics software and by then this Samuels problem will be solved.'"

Yardley leaned forward in her chair as if her next remark needed special emphasis. "He then told me that if I did not fake the software tests, then everyone in the Robotics Division would lose their job. On that basis I decided to fake the test results - I was trying to protect my job and the job of my co-workers."

Ms. Yardley is currently pursuing an MBA degree at night at Silicon Valley University.

The Sentinel-Observer then asked Ms. Yardley whether she still felt that she had made an ethical decision, in view of the death of Bart Matthews. "I think I was misled by Ray Johnson. He told me that the robot was safe."

Another revelation, contained in the released electronic mail transcripts, was the fact that Randy Samuels stole some of the software that he used in the killer robot project. This fact was revealed in a message Samuels sent to Yardley when she first tested his software and it gave erroneous results:

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In-reply-to:
cindy.yardley
From:
randy.samuels

Re:     damned if I know

I cannot for the life of me
figure out what is wrong with
this  function,  swing_arm().
I've   checked   the   robot
dynamics  formula  over  and
over again, and it seems to
be   implemented   correctly.
As    you    know,   swing_arm()
calls 14 different functions.
I lifted five of those from
the      PACKSTAT      1-2-3
statistical package verbatim.
Please  don't  tell  a  soul!
Those     couldn't     be     the
problem, could they?

     - Randy
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Experts tell the Silicon-Observer that lifting software from a commercial software package like PACKSTAT 1-2-3 is a violation of the law. Software such as the immensely popular PACKSTAT 1-2-3 is protected by the same kind of copyright that protects printed materials.

Mike Waterson, CEO of Silicon Techtronics issued an angry statement concerning Max Worthington's release of "confidential" electronic mail transcripts. Waterson's statement said, in part, "I have asked our attorneys to look into this matter. We consider those transcripts the exclusive property of Silicon Techtronics. Our intent is to pursue either civil or criminal charges against Mr. Worthington."

In reaction to yesterday's developments in the killer robot case, the ACM or Association for Computing Machinery announced its intention to investigate whether any ACM members at Silicon Techtronics have violated the ACM Code of Ethics. The ACM is an international association of computer scientists with 85,000 members.

Dr. Turina Babbage, ACM President, issued a statement from the ACM's Computer Science Conference, which is held every winter and which is being held this winter in Duluth, Minnesota.

An excerpt from Dr. Babbage's statement follows:

All members of the ACM are bound by the ACM Code of Ethics and Professional Conduct [FOOTNOTE: A draft of this code was reported in Communications of the ACM, May 1992. Please note that the statement by the fictitious Dr. Babbage contains verbatim quotes from the actual ACM code.]. This code states, in part, that ACM members have the general moral imperative to contribute to society and human well-being, to avoid harm to

others, to be honest and trustworthy, to give proper credit for intellectual property, to access computing and communication resources only when authorized to do so, to respect the privacy of others and to honor confidentiality.

Beyond that, there are professional responsibilities, such as the obligation to honor contracts, agreements, and assigned responsibilities, and to give comprehensive and thorough evaluations of computing systems and their impacts, with special emphasis on possible risks.

Several of the people involved in the killer robot case are ACM members and there is cause to believe that they have acted in violation of our association's code of ethics. Therefore, I am asking the ACM Board to appoint a Task Force to investigate ACM members who might be in gross violation of the code.

We do not take this step lightly. This sanction has been applied only rarely, but the killer robot incident has not only cost a human life, but it has done much to damage the reputation of the computing profession.