

Looking Inward
SELF-ASSESSMENT
Series

Lethal Keystrokes

Websites, Blogs and Other Sources
of Program Information and Identity Theft

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Lethal Keystrokes

Websites, Blogs and Other Sources of Program Information and Identity Theft

This is a 3 part self-assessment to learn more about one person's decisions, how those decisions may adversely affect a program such as FCS, and how you may find yourself in similar situations.

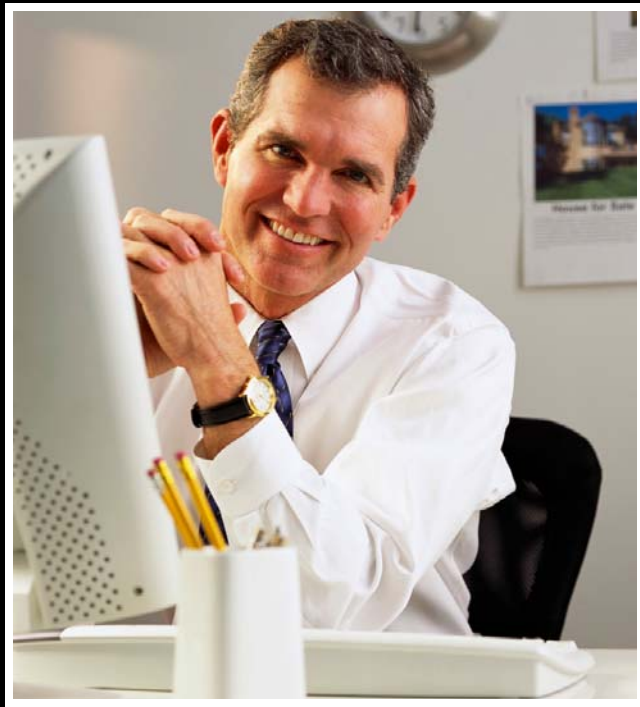
The goal for this self-assessment is to increase your awareness that you really are a potential target and the actions you take impact more than you may initially realize.

While the characters are fictional, this type of scenario and the vulnerabilities being illustrated are only too real.

EPISODE 1 OF 3

Lethal Keystrokes

Websites, Blogs and Other Sources
of Program Information and Identity Theft



Meet Chris

- Husband, father of two, weekend little league coach
- He is a talented and dedicated engineer for the Bright Company
- Chris proudly works on the Future Combat Systems program

In the year 2010

Chris will have contributed to the death of
238

U.S. Soldiers... ...because of a decision
he made tonight

On rare occasions

At night Chris logs on to engineering community web sites and blogs, just to stay current with the industry.



- Chris works for a defense contractor and has listened to all of the security briefings. He knows to be careful about what he tells anyone.
- Chris never uses his name and rarely posts anything at all. When he does, he only uses his on-line name:

“EaglesFan54”

09/13/2004

EaglesFan54

I know for a fact that WIRENUT207 is dead wrong, but I can't say how I know. You really need to go back and get some updated information, but that's all I can say about it.



05/11/2005

EaglesFan54

Kyle Boldgers new book "Beyond Advanced Electronics" is by far the best industry book I have read in 10 years. Everyone should check it out.

02/18/2006

EaglesFan54

I don't agree at all the HLT5807 chip is out of favor. Even the military uses it on their major new programs.



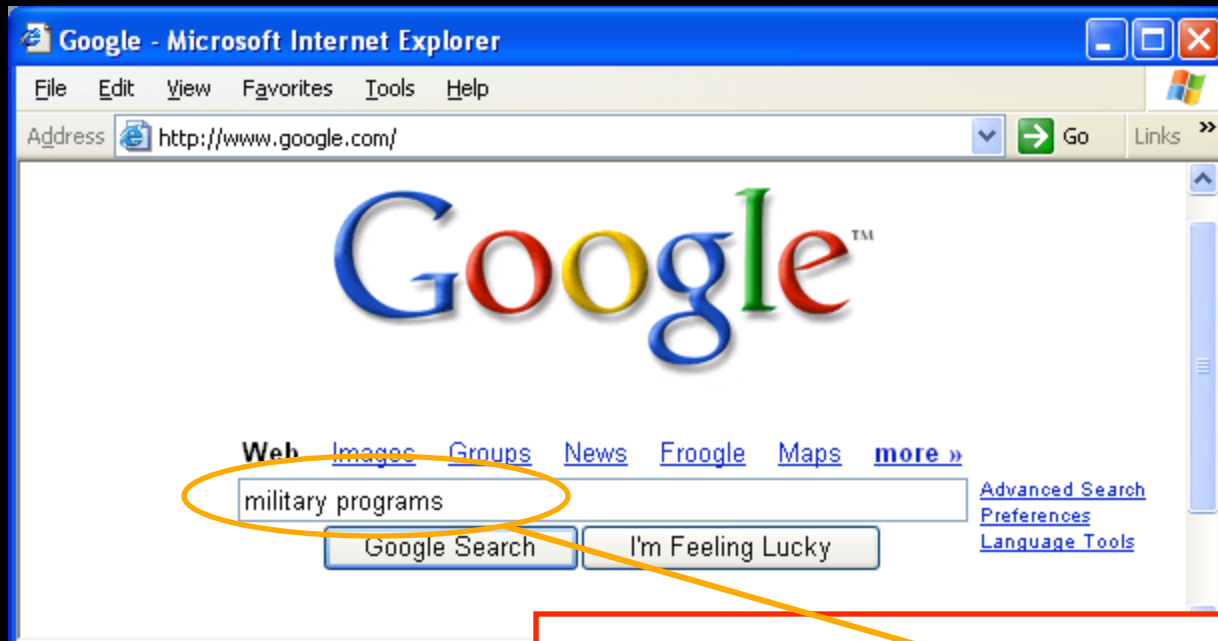
Meet Alice

- She is 16, and for the last two years her government has been teaching her English
- Alice has done well, so eight months ago they started to teach her to use a computer and to search the Internet

Alice's favorite English word is *Google*

- Just like every day, Alice is using Google today—searching for words and phrases from a list her government gave her.
- Alice knows if she works hard for five years and creates lots of files for her government, they will move her family to a nicer apartment and maybe even send her to more school.

Today, Alice found Chris...



02/18/2006

EaglesFan54

I don't agree at all
the HLT5807 chip is out of favor. Even the military
uses it on their major new programs.

USA-15-4138

The day started great for Chris

- The team he leads hit a major program milestone, and each was given an unexpected performance bonus. For Chris it was one step closer to his retirement fishing cabin.

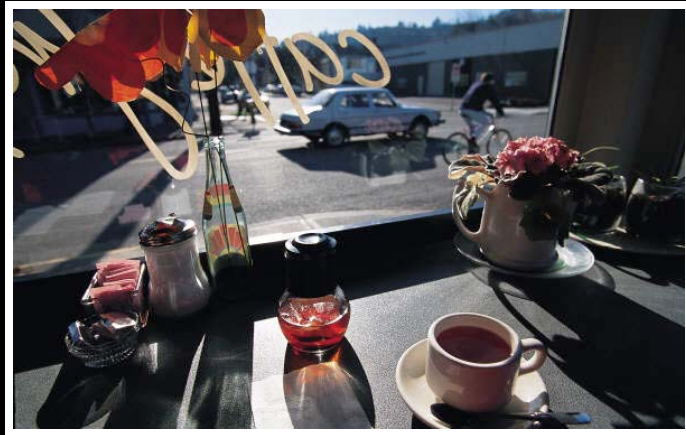


And then the day went bad



- Yet another half day spent in a quarterly security update briefing. Chris promised his team he would talk to senior management about not wasting their time on these anymore.

It did give the team an excuse to get some good coffee for a change



- After the briefing his team walked across the parking lot to the new “American Tea” shop. It catered to the large Bright Co. team that worked at their site.

It was a great place to unwind

- The store offered free Wi-Fi (wireless Internet access), six free small “quiet rooms” to make phone calls, and a 15% discount to Bright Company employees when showing their badge at the time of purchase.

Chris was still angry about the briefing...

- While in line Chris complained to one of his team, “Do they really think a person with a Secret clearance needs to be reminded about this stuff? And no one goes ‘dumpster-diving’ any more! These security guys have no clue what they’re talking about.”

Two Discussion Topics

Use the prior episode to consider the impact on your personal responsibility to you, your family, and our war fighters.

1 “I am no one they care about”

- That may be true for now, but you never know when one on-line posting will bring YOU to their attention.

Something to think about

- While Chris thought he was careful, it is difficult to know exactly what an adversary is looking for, and if what you have may be of benefit.

2

“What about the Coffee Shop?”

- The coffee shop is a good reminder of ways in which our adversaries may go about gathering sensitive information.
- Most front businesses will not be called “Terrorist Coffee” so always try to pay attention to the less obvious.

Some things to think about

- Free Internet provides a way to capture network traffic, including personal email passwords that are often similar to work passwords. Every puzzle piece helps them.
- Free Quiet Rooms encourage “sensitive” conversations in rooms that may have listening devices, but a more common method may be simply listening to conversations going on in public areas such as coffee shops, airports, hotel lobbies, etc...
- When you show your security badge as an ID outside the workplace, “bad guys” discover any time your facility changes its badge, and when new security (such as a “smart chip”) is rolled out. If they have infiltrated a facility, they know to update their fake badges by the next day.

EPISODE 2 OF 3

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Alice's progress was slow and steady

- Her group leader often repeats that the searchers need to be very patient. It may take weeks to find something important, but each petal helps you identify the flower it came from.

Each piece of the puzzle provides
a new search opportunity...



09/13/2004 EaglesFan54 I know for a fact that WIRENUT207 is dead wrong, but I can't say I how I know. You really need to go back and get some updated information, but that's all I can say about it.

05/11/2005 EaglesFan54 Kyle Boldgers new book "Beyond Advanced Electronics" is by far the best industry book I have read in 10 years. Everyone should check it out.

02/18/2006 EaglesFan54 I don't agree at all that the HLT5807 chip is out of favor. Even the military uses it on their major new programs.

"I can't say how I know"

"Book suggestion: Beyond Advanced Electronics"

"military" and "major new programs"

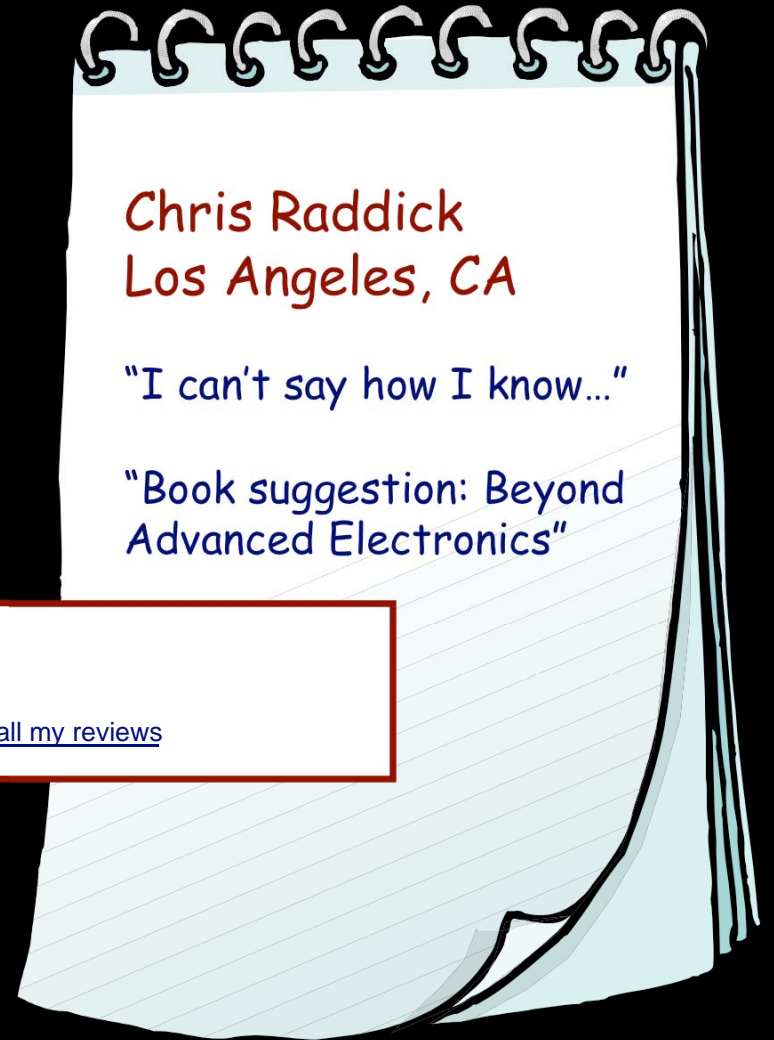
Alice followed the information from one website to another

- What seemed like unimportant information from one site was the start of the Google search leading to other sites.



amazon.com Customer
★★★★★ Great Industry Read, May 7, 2005
Reviewer: Chris Raddick "The #1 Eagles Fan" (Los Angeles, CA) - [See all my reviews](#)

Even items which are now deleted from web sites can still be searchable within the Google cache (history)



The search results produced even more new sources to follow



Google Web

Youth League Families – Los Angeles Little Eagles

Email: **Chris Raddick** c.raddick@brightcompany.com, Phone: (919) 555-1784; Email: **Beth Raddick** bethbear@alltheraddicks.com, Phone: (919) 555-3159
www.payoutleagefootball.net/division1/parentlisting.html

The Raddick Family – Bright Night with the Eagles

Chris' whole team from Bright celebrated Bright Night with players from the **Eagles**. The company sponsored night...

www.cableco.com/alltheraddicks.com/brightnight.htm

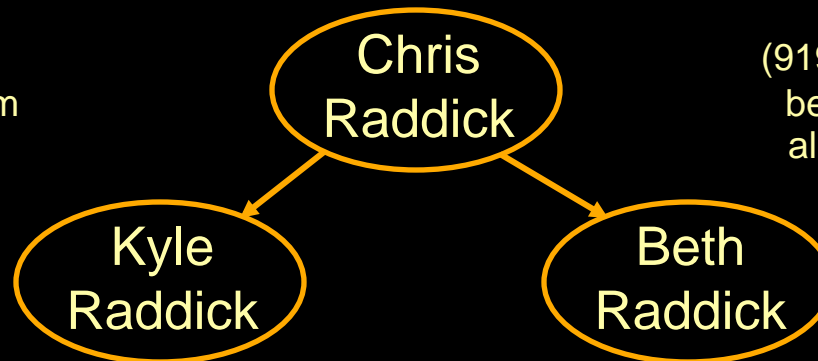
www.myspace.com/kyleraddick

MySpace Profile - **Kyle Raddick**, 16 years old, Male, **Los Angeles, CA**

Chris Raddick
(919) 555-1784 (cell phone?)
c.raddick@brightcompany.com
(employer?)

Kyle Raddick, 16 (son?)
MySpace (blog) website

Beth Raddick (wife?)
(919) 555-3159 (home phone?)
bethbear@alltheraddicks.com
alltheraddicks.com (website?)



Each new site produces more information

Family and club web sites can be used to find new information or confirm data

Google Web

[The Raddick Family – Bright Night with the Eagles](#)

Chris' whole team from Bright celebrated Bright Night with players from the LA Eagles. The company sponsored night....

www.cableco.com/alltheraddicks.com/brightnight.htm



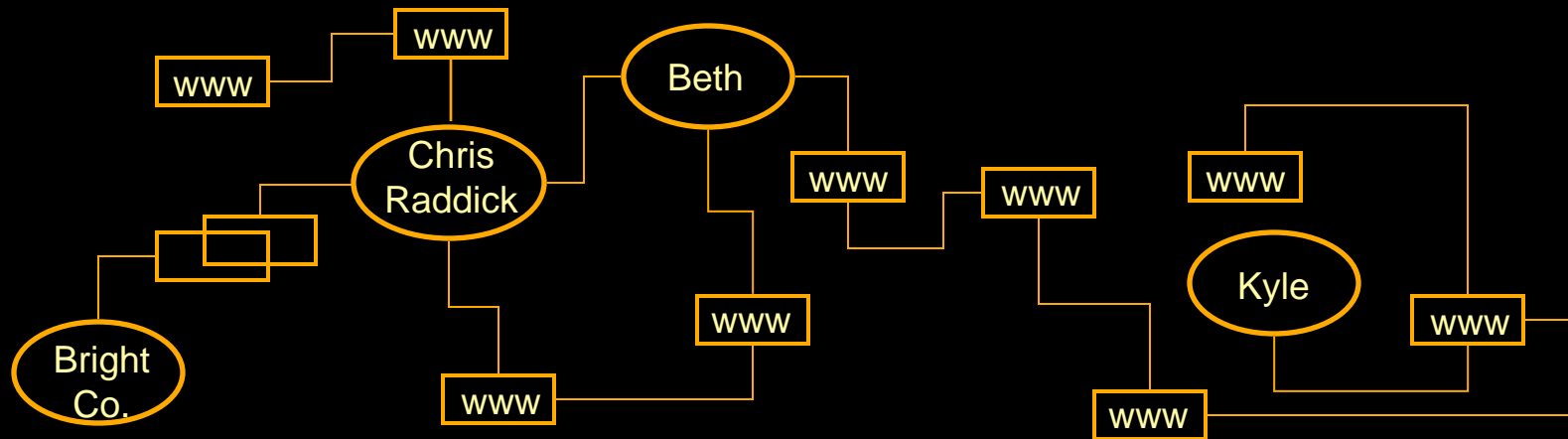
The information was all there, on sites Chris had never visited or posted information to

WhitePages.com Reverse Phone Number Search

Results 1 listing matching "(919) 555-1784"
[Search Again](#) [Modify Search](#) [Printer Friendly](#)
Christopher Raddick
1359 Lost Way
Los Angeles, CA
(919) 555-1784

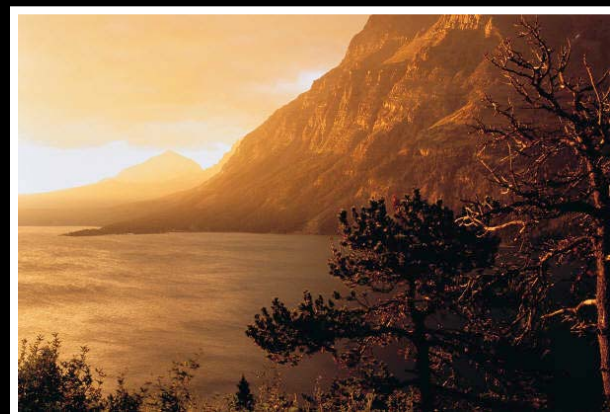
Results 1 listing matching "(919) 555-3159"
[Search Again](#) [Modify Search](#) [Printer Friendly](#)
Elizabeth Raddick
1359 Lost Way
Los Angeles, CA
(919) 555-3159

And eventually Alice was done searching



It was a great day for Alice

• Her leader rewarded Alice for completing her 200th file. She was allowed to recommend a family member to join her at school. Soon Alice would have the honor of teaching her thirteen year old sister all she had learned about computers and Google.



The information about Chris was now available
for use as needed...



Christopher (Chris) Allen Raddick, Born 1954
Married, two children (see family attachment)
1359 Lost Way, Los Angeles, CA; Ph. cell 919.555-1784
Employed: Defense Contractor, The Bright Co.
Engineer, Program "**Future Combat Systems**"
Sports Teams: Eagles; Children's Sports Coach;
Drinks Alcohol; Sails; Water-skis;
Home Mortgage, \$234,177; First LA Bank;
Vehicles: 2004 Chevrolet Camaro, 1999 Volvo Wagon

Two Discussion Topics

Use the prior episodes to consider the impact on your personal responsibility to you, your family, and our war fighters.

1 “I’m smarter than the enemy”

- It’s a common feeling. People interviewed often say they know they are smarter than “some guy who is now just sitting in a cave hiding from us.”
- Chris knew he was smarter than any adversary when he used careful expressions like, “I can’t say how I know.”

Some things to think about

- In addition to small radical groups, our adversaries are some of the largest nations in the world, who are willing to spend BILLIONS of dollars to gain an economic advantage. Information theft is a good investment for them, even if they just trade it for something they want.
- Some of the world’s best intelligence agencies are training young people as experts to go and gather information for them. You are up against the experts!

2

“I don’t post on the Internet”

- Not posting may help you somewhat, but it is just one example of how you can come to the attention of someone with bad intentions.
- Another source is unencrypted email messages which are either misrouted, intercepted, or gathered by adversaries on discarded or poorly protected backup tapes. Stealing backup tapes is a common occurrence.

Some things to think about

- Remember that Chris did not know about all of the information sources that had information about him. He only thought about the sites he dealt with. Most of the others you don’t have control over, but you do have control to encrypt email and post as little “account” information as you can on web sites.

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In early 2008

- Alice's government became aware that a vulnerability exists in a particular technology which may have been integrated into certain U.S. defense projects. To benefit from the information, they needed to know for sure.

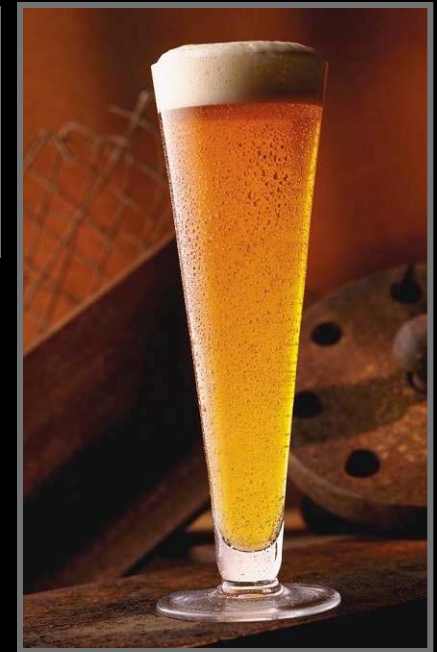
Later that same year, Chris attended an out-of-town engineering conference for defense and related industries.



- Although held at the unclassified level, conference attendance was very restricted. Every attendee required a government sponsor.
- The hotel conference center had guards outside the meeting rooms, and conference badges had to be worn when attending sessions.

Chris sat in the hotel bar

- He was tired after four days of conference
- At the other end of the bar Chris noticed a guy wearing a Los Angeles Eagles hat. He had seen him several times around the hotel in the last several days. In the restaurant, lobby and elevators. Chris walked over.



“Eagles! – In this town?” Chris said.

“I know, I’m getting grief from everyone,” the man replied.

“Not from me. I’m actually a diehard ” Chris said.

“You’re kidding me!” The man introduced himself as Tom.

“Well that’s definitely worth a beer,” Tom said smiling.

“Greatly appreciated,” Chris said. “You at the conference?”

Tom nodded. “First week out of my lab in two years.”

Chris grinned. “DOD project?” Chris asked, drinking his beer.

“Sorry, can’t say,” Tom replied. “You know, that always sounds bad no matter how you say it. Nothing personal.”

Chris smiled “No problem. Really, I totally understand.”



Tom insisted on buying dinner

- They talked sports and generally about work, careful not to say too much.
- Tom bought a second pitcher of beer, reminding Chris that Tom's company was more than happy to pay his expense account since he traveled so rarely.

“I was actually hoping to hear if anyone else was thinking of using Clariden's new Digital Signal Processors,” Tom mentioned casually. “I hate being the first program to use a new chipset.”

“Don't worry then,” Chris said, “Army is using them.”

Tom grinned. “You must be working on Future Combat Systems.”

“Can't say,” Chris said smiling, “but you definitely don't need to worry that your program will be the first military program to use it.”

Dinner was now over

- Tom was very pleased that it has gone so smoothly. He had the confirmation he needed and would even be able to contact Chris again if need be.
- He had told Chris that he had to leave the conference the next morning to catch an early flight. No risk of having to explain why he was not registered to attend the conference.

Tom never even had to threaten Chris with the picture in his pocket, designed to show Chris how close Tom's supporters had come to using Chris' family as "motivation."



“I don't have ANY adversaries!”

- Feel like all of this “war” and “terrorist” or “adversary” talk is about someone else?
- Take a quick look at some other groups that use these exact same on-line information gathering techniques.

Some things to think about

- Former girlfriends, boyfriends, divorced spouses.
- Angry neighbors, people you only knew casually.
- Disgruntled co-workers, employees, temporary workers.
- Identity thieves. (Try a Google search on your name.)
- Pedophiles seeking information to convince your children that they should be trusted.
- Anyone else who might want a little information about you, even just to know you better than you want them to.

Conclusion

2009 was a very good year!

For Chris and his family...

- Kyle Raddick, Chris and Beth's oldest son, had joined the Army. They were very proud of him. Chris took extra pride in knowing what he contributed to the success of the Army's Future Combat Systems.



For Alice's government...

- Alice's government used the information they had developed from Chris about the system vulnerability to trade with another government, who was very interested in using it against the United States.



In the year 2010

Another 238 U.S. Soldiers
were killed.

Chris will lie in bed and watch the news tonight,
and worry about the life of his son.

What will you do the next time all of those
security warnings seem like they apply
only to someone else.

“I am no one they care about” revisited

- Chris was just another name in a file until they needed some inside information about his program. It never occurred to him that an intelligence agency would target him for a piece of information, but they did.

Some things to think about

- Chris had no idea that just confirming that the Clariden DSP chip was in use would be enough to hurt or kill. But that one small piece of information was the last piece in the puzzle that the enemy was putting together.
- While Chris thought he was careful, it is difficult to know exactly what an adversary is looking for, and if what you have may be of benefit to defeat our war fighters.

Don't feel hopeless

Increasing your awareness that you really are a potential target, remembering that being “clever” in a conversation or email is very likely to fail, limiting what you can do on the Internet, and encrypting all email and drive storage you are able to –
Really can make the difference!



Looking Inward SELF-ASSESSMENT Series

This self-assessment series is produced for
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Please contact us with any questions or comments
at FCSOCIOIMA@Boeing.com

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Interagency OPSEC Support Staff

Meeting the Challenges of a Changing World

We would like to acknowledge
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www.IOSS.gov