Computer Ethics (English)

BLG412E

1: What and why computer ethics

Contents

1. What and why ethics.
2. What and why computer ethics.
3. Topics & plan.
4. Assessment.

Why not study ethics?

- It's all common sense anyway!
  - 1. Copy essay.
  - 2. Pass course.

Why study ethics?

Tech companies say tens of thousands of user accounts were subject to national security spying **The Washington Post**

Husband accused of being a 'cheater' by more than 183,000 Facebook users after woman who 'heard him bragging about affairs on US train' put his picture online

- Picture of cheating spouse shared more than 188,000 times on Facebook
- Fellow passenger complains of having to listen to his boasts for two hours

-66.6%

Tue   Wed   Thu

By DAILY MAIL REPORTER

PUBLISHED: 17:30 GMT, 8 June 2013 | **UPDATED:** 16:49 GMT, 9 June 2013

Turkish police fire tear gas to break up Internet protest

http://www.reuters.com/article/2014/02/08/us-turkey-internet-protest-idUSBREA170NK20140208

ISTANBUL Sat Feb 8, 2014 1:19pm EST

Last updated: February 9, 2014 2:17 pm

Barclays launches investigation after reported customer data leak

Why study ethics?

- The issues are **important**.

Why study ethics?

- Common-sense: no such thing.

- Thousands of years of thought.

- Disciplined dialogue:

    – Everyone wants to do right.

    – What is that?

    – We are all searching.

- Things keep changing.

    $\rightarrow$ Computer ethics.

Why study ethics?

- Thought → action.

Stances for studying ethics

Thinking is emotional, morality more so.

Detached stance:

– Attempt objectivity.

– Reason and debate.

– "Ethics" rather than "morality".

– Descriptive before normative.

Reflexive/critical stance:

– Assume subjectivity.

– Critical examination of self and society.

– Ask where ideas came from.

– Self-examination.

KEEP CALM AND USE LOGIC

General approach to studying ethics

Computer ethics as applied ethics.

1. Identify moral problem.

2. Collect data, clarify concepts.

3. Apply moral theories & deliberate.

(Philip Brey, 2000 – see textbook chap 1)

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Why computer ethics

New problems.

- But aren't they just classes of old problems?
  - Intellectual property:
    - Patents, copyright already existed.
  - Database state:
    - States had paper trails.
  - Etc.

Many new problems.

- Computer technology *uniquely malleable*.
- Leads to *conceptual muddles* and *policy vacuums*.
- More work needs to be done on these.

  (Moore – see textbook chap 1)

O 89.3 KPCC
Southern California Public Radio

AirTalk for June 7, 2013

NSA secret "PRISM" data mining operation much bigger than initially suspected

AirTalk | June 7th, 2013, 10:51am

Why computer ethics

- Unknown features of technology exist.
- Some known features *morally opaque*.
  → Engineers can help with "disclosure".
  (Brey)

CNET › News › Politics and Law › NSA reportedly using radio waves to tap offline …

NSA reportedly using radio waves to tap offline computers

Spy agency uses covert channel of radio waves to access and alter data on non-Internet-connected computers, the New York Times reports.

The National Security Agency is using secret wireless technology that allows it to access and alter data on computers, even when they are not connected to the Internet, according to a New York Times report.

Since 2008, the agency has been increasingly using a "covert channel of radio waves" that can transmit from hardware installed in the computers, according to NSA documents and experts interviewed by the Times. Signals can then be sent to briefcase-size relay stations miles away, according to the report.

by Steven Musil | January 14, 2014 6:45 PM PST

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Why computer ethics

- Computers and information can be powerful.

- Information persists.

- Technology can be unreliable.

- The scale of information is vast.

- Information can be controlled.

Information persists

Tech companies say tens of thousands of user accounts were subject to national security spying

The Washington Post

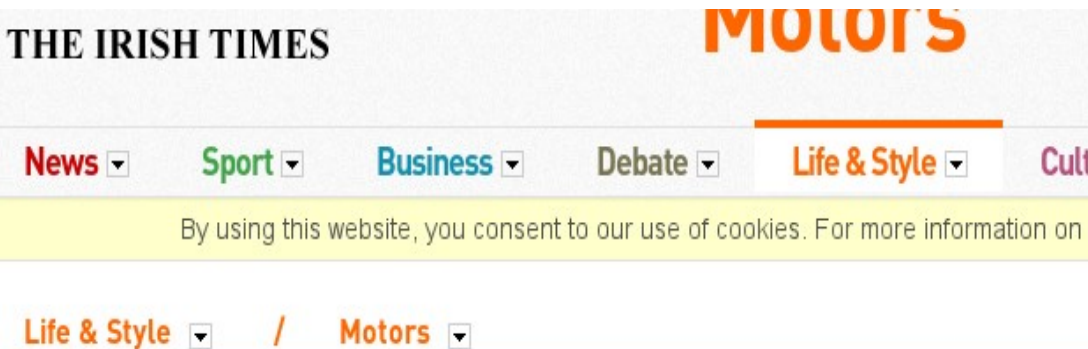www.washingtonpost.com/

BY **TIMOTHY B. LEE** ✉ February 3 at 3:51 pm

Several of the nation's leading technology companies released new data on Monday detailing the extent of NSA surveillance of their users. Numbers released by Yahoo, Google, Microsoft, LinkedIn and Facebook show that in the first six months of 2013, the NSA submitted requests for private information from at least 59,000 user accounts.

Of the five companies, Yahoo appears to have been the favorite of NSA analysts. The Sunnyvale company received national security requests for "content" from at least 30,000 users. Microsoft fielded requests affecting at least 15,000 accounts, while Google requests affect 9,000 user accounts. Facebook said that its requests affect at least 5000 users. LinkedIn said it received fewer than 250 national security requests.

The companies may also have received requests for "non-content" information, such as data about the times, senders, and recipients of e-mail messages. Yahoo, Google, Facebook, and Microsoft all said they received fewer than 1,000 of these in the first half of 2013.

Technology is not always reliable

THE IRISH TIMES

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Toyota recalls 1.9m Prius hybrids due to computer fault

Around 700 vehicles in Republic part of recall to fix problem that could cause vehicle to stop

Car marker Toyota is recalling 1.9 million of its Prius hybrid cars because of a computer problem that could cause the vehicle to stop.

It is understood around 700 vehicles in Ireland will be part of the recall.

Toyota is recalling nearly 31,000 UK-registered cars because of a computer problem

Baseline
Driving Business Success With Technology

'We Did Nothing Wrong'

By John McCormick | Posted 2004-03-04 ✉ Ema

"Software programs are killing people." At the National Cancer Institute in Panama City, five cancer patients died after an overdose of radiation during their treatments. The U.S.-made software that calculated the dosages of these treatments doubled the dosages during treatment of 27 patients. The International Atomic Energy Agency's investigation of the five deaths blamed radiation poisoning, and said that the remaining patients would be at risk for developing "serious complications" from the radiation. Two of the Panamanian technicians were convicted of second-degree murder and are serving four-year sentences in a Panama prison. And the makers of the software, Multidata Systems International in St. Louis, Missouri, deny any wrongdoing.

Technology is not always reliable

System failure has docs, patients upset

BY GILLIAN SLADE ON JUNE 10, 2014.

gslade@medicinehatnews.com
@MHNGillianSlade

Many patients were turned away from their doctor's office Monday because a province-wide electronic medical record computer system had collapsed.

CBS DFW

Inmates Freed By DPD Computer Glitch Suspects In New Crime

June 19, 2014 9:25 PM

IEEE SPECTRUM

French Hospital's Computer "Bug" Trashes a Fortune in Perfectly Good Drugs

By Robert N. Charette
Posted 16 Jun 2014 | 13:00 GMT

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WCAX.com

Computers down at Vermont's largest hos

Posted: Jun 13, 2014 11:12 PM EEST
Updated: Jun 17, 2014 12:00 AM EEST

By WCAX News - bio | email

Technology is not always reliable

BloombergBusinessweek
Markets & Finance

Stock Markets

Knight Shows How to Lose $440 Million in 30 Minutes

By Matthew Philips | August 02, 2012

SEND TO kindle

CNN Money

Knight Capital Group

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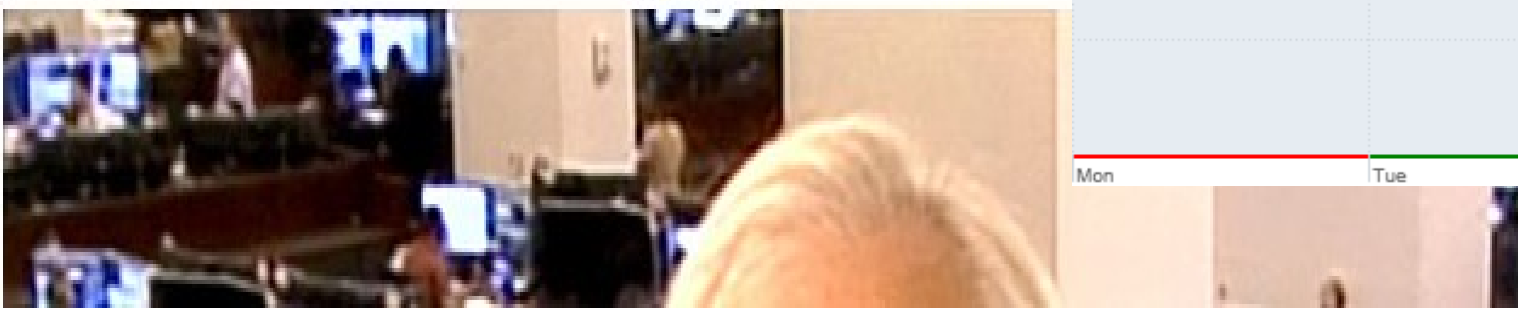
Information persists

Husband accused of being a 'cheater' by more than 183,000 Facebook users after woman who 'heard him bragging about affairs on US train' put his picture online

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By DAILY MAIL REPORTER

PUBLISHED: 17:30 GMT, 8 June 2013 | UPDATED: 16:49 GMT, 9 June 2013

f **Share**   y **Tweet**   g+ +1   ⤳ **Share**   💬 **126** View comments

A husband allegedly bragging about cheating on his wife has been publicly shamed on Facebook, after a train passenger overheard his conversation.

The picture of the man, who had been traveling on a train from Philadelphia with friends, has since been shared more than 183,000 times since a Pennsylvania mother posted in on Wednesday.

'If this is your husband, I have endured a 2 hour train ride from Philadelphia listening to this loser and his friends brag about their multiple affairs and how their wives are too stupid to catch on. Oh please repost...' Steph Strayer wrote on Wednesday.
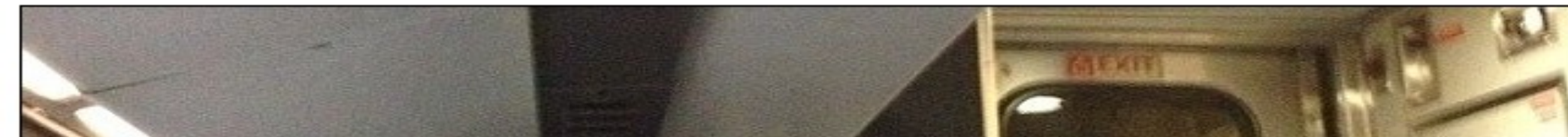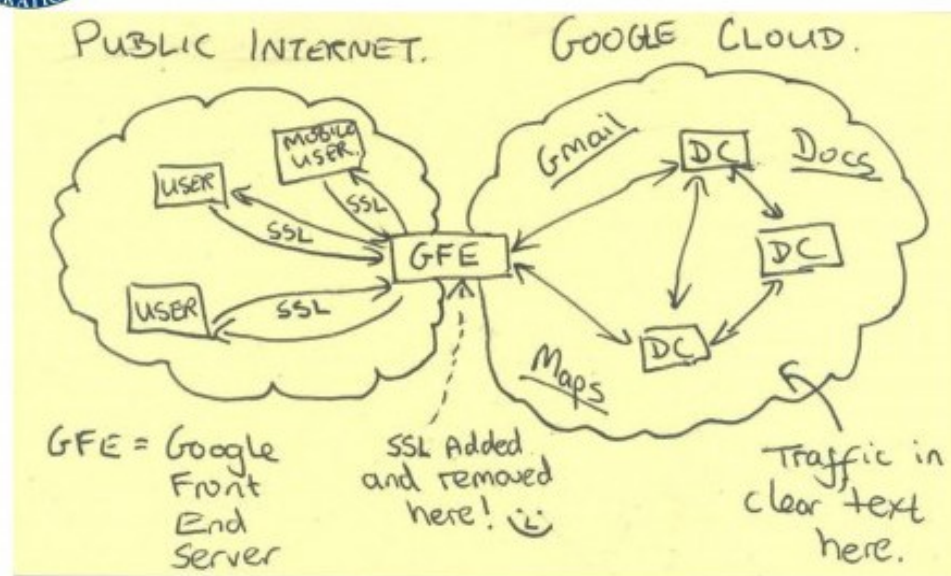
Information can be insecure

The Washington Post

NSA infiltrates links to Yahoo, Google data centers worldwide, Snowden documents say

TOP SECRET//SI//NOFORN

Current Efforts - Google

TOP SECRET//SI//NOFORN

In this slide from a National Security Agency presentation on "Google Cloud Exploitation," a sketch show where the "Public Internet" meets the internal "Google Cloud" where user data resides. Two engineers close ties to Google exploded in profanity when they saw the drawing.

The National Security Agency has secretly broken into the main communications links that connect Yahoo and Google data centers around the world, according to documents obtained from former NSA contractor Edward Snowden and interviews with knowledgeable officials.

By tapping those links, the agency has positioned itself to collect at will from hundreds of millions of user accounts, many of them belonging to Americans. The NSA does not keep everything it collects, but it keeps a lot.

By Barton Gellman and Ashkan Soltani, Published: October 30 E-mail the writer

Information can be insecure

Welcome to FT.com, the global source of business news and analysis. **Register r**

Last updated: February 9, 2014 2:17 pm

Barclays launches investigation after reported customer data leak

By Martin Arnold, Banking Editor

Barclays and the UK banking regulator are investigating the alleged theft of confidential information about 27,000 of its customers.

The Financial Services Authority, the precursor to the FCA, fined the UK arm of Zurich Insurance Group £2.275m for losing personal data about its customers in 2010 and, a year earlier, three HSBC-affiliated insurers paid a total of £3m for data security problems.

More

ON THIS STORY

Information can be controlled.

REPORTERS WITHOUT BORDERS
FOR FREEDOM OF INFORMATION

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CHINA CENSORS REPORTS ABOUT ELITE'S HIDDEN FUNDS

PUBLISHED ON FRIDAY 24 JANUARY 2014, UPDATED ON MONDAY 27 JANUARY 20

Print | Send | français | Tweet

Access to the websites of *Le Monde*, *The Guardian*, *Global Mail*, *El País* and *Süddeutsche Zeitung* were blocked in China after they and other international media reported the results of research into the accounts held by members of the Chinese elite in offshore tax havens. The entire Chinese Internet also went down for several hours after these reports appeared online.

The Register®

POLICY > GOVERNMENT

China's censors censor press censorship report

Inside the Great Firewall you'll never learn how the Great Firewall operates

By Phil Muncaster, 13th February 2014   Follow   3,580 followers

Information can be powerful

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LONDON FOR LONDONERS

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Suicide teen's mum wants 'poisonous self-harm websites' taken down

was obsessed with online blogs about suicide, an inquest heard, and in her own blog portrayed herself as a cocaine-taking anorexic to her 18,000 followers, posting pictures of self-harming scars.

The 15-year-old ballerina from West Hampstead killed herself in October 2012, just days after her mother Sarah discovered her online persona.

BBC
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BBC RADIO 1 NEWSBEAT

Mobile porn access 'damaging' g' children and teenagers

Around half of 15 to 17-year-olds have accessed pornography on a smartphone or tablet, according to a survey seen by Newsbeat.

The poll, carried out by the mental health charity Young Minds, also suggests a third of 11 to 14-year-olds had watched porn on a mobile device.

The survey questioned 2,000 people aged 11 to 25.

Young Minds said the results show porn is having a "damaging impact" on young people.

The survey, published on Safer Internet Day, suggests many people who watch porn think it has affected their relationships.

Information can be powerful

Data Centre · **Software** · **Networks** · **Security** · **Policy** · **Business** · **Jobs** · **Hardware**

Government · Law

POLICY > GOVERNMENT

1m French out of work thanks to dodgy data - UK next?

Get vetted and go... on the dole

By Jane Fae Ozimek, 30th January 2009 · **Follow** · 1,833 followers

23

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CRB database wrongly labels thousands as criminals

Protecting your virtual environment

As the UK prepares to put in place its shiny new vetting database later this year, analysis of a similar project in France reveals a devastating degree of inaccuracy, leading to real hardship for a very large number of people.

A report (pdf) issued last week by CNIL, the French Data Protection Agency, reveals that as many as a million people have lost jobs — or didn't get them in the first place — because of inaccuracies in the police STIC database (Systeme de Traitement des Infractions constatés, or "criminal record check system").

Computers can be powerful

RT — QUESTION MORE. LIVE

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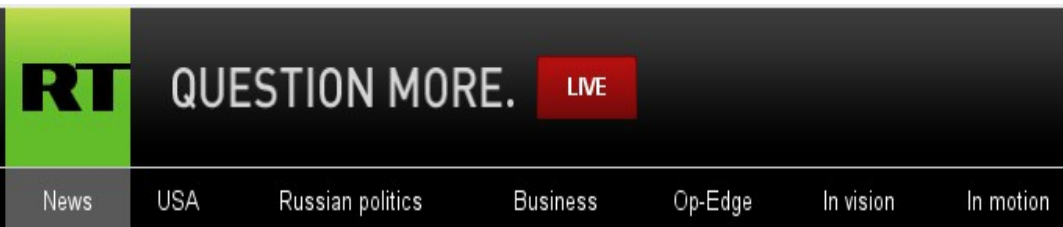
Home / News /

Over 300 US drone strikes in Pakistan since 2006 – leaked official data

Published time: January 30, 2014 13:17   Get short URL

Top-secret documentation collected by Pakistani field officers gives detailed information on 330 US drone strikes that have occurred in Pakistan since 2006. The CIA-run program is estimated to have killed 2,371 people.

From solitary individuals riding on horseback to mountain hideouts crammed with people, the CIA drone program has had no shortage of targets in the Islamic Republic, according to newly released information obtained by The Bureau of Investigative Journalism (TBIJ).

Tags
Arms, CIA, Drones, Military, Pakistan, Politics, Robert Bridge, Terrorism, USA, War

Entrepreneur.

Does Google's Buying Spree Mean the Robot Apocalypse Is Near?

BY BRIAN PATRICK EHA | January 28, 2014 | 💬 7 Comments | 🔗 Clip it

Think the robot apocalypse might be near? Think again. Although Google made headlines for snapping up eight robotics companies in the second half of 2013, and again for dropping a reported $400 million on artificial-intelligence startup DeepMind last week, one entrepreneur with a deep background in robotics says we're a long way from being subjugated by intelligent machines.

"Generally it's best to keep our expectations about such technology fairly conservative," says Tandy Trower, the founder and chief executive of Seattle-based Hoaloha Robotics, whose mission is to create robot companions for the elderly.

And Trower knows from robots. Before striking out on his own in 2009, he founded Microsoft's

All the time new gaps

Years	Technology	New Concerns
1950s 1960s	Computers! Mainframes!	Databases & privacy (big brother state). Artificial Intelligence.
1970s 1980s	Mini computers & PCs. Small-scale networks.	Intellectual property & software piracy. Computer crime. Communications privacy.
1990s 2000s	Internet & WWW.	Freedom of expression & censorship. Anonymity Legal jurisdiction. Virtual communities.
Beyond	Big data. Biotechnology. Pervasive computing.	Virtual agents. Invasive technology. Offline privacy. Cyber warfare.

Modified from Tavani table1.1 (3rd ed).

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Course Plan

1. Intro & stance (1 hour).

2. Ethical theories (1.5 hours).

3. Professional ethics & responsibility (2 hours). ← Annotated Bibliography

4. Privacy (2 hours).

5. Intellectual Property (3.5 hours).

6. Cybercrimes (1 hour). ← Term paper

7. Internet (1 hour).

8. Social context (2 hours). ← Exam

...anything you'd like to add?

Assessment

Weightings:

– Within-term exam: 50%.

– Term paper: 50% (including annotated bibliography).

To avoid VF:

– Attendance: ≥70% (9 hours).

– Annotated bibliography: ≥30%.

– Term paper: ≥30%.

To avoid FF:

– Average: ≥40%.

Term paper

- A **research report**.

    - Not an essay.

- Analytical approach.

- Examine prior thinking (academic literature).

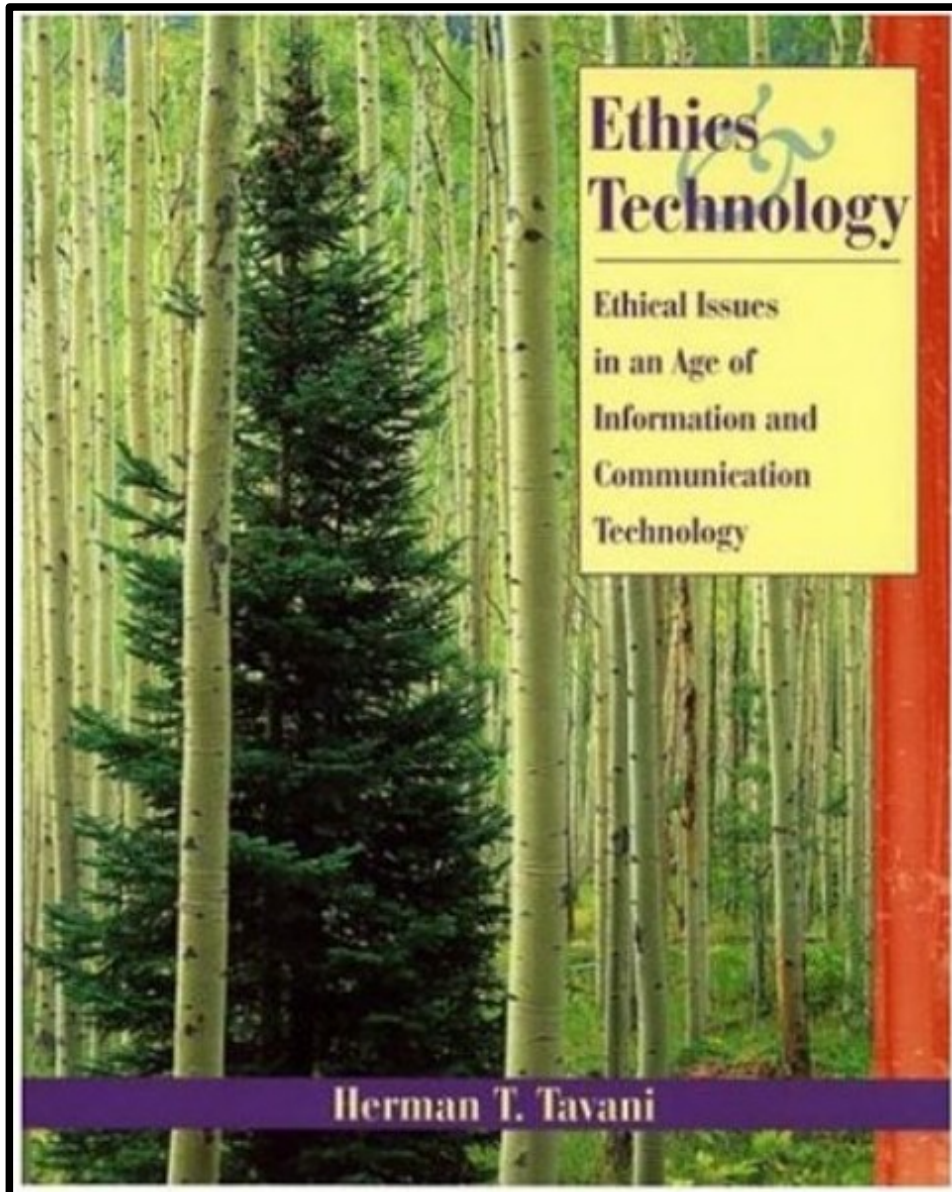- Deal in evidence not assumption.

- Be critical.

Literature search

- ACM Digital library.
- WebOfScience.
- EBSCO.
- Google Scholar.

Exam

- 3-4 short questions.

- 1 question will be about ACM/IEEE-CS SECEPP.

Textbook

Ethics & Technology

Herman T. Tavani

Wiley, 2007

ISBN 0-471-99803-6

Suggested Reading for this lecture

Narayanan, A., & Vallor, S. (2014). **Why software engineering courses should include ethics coverage.** Communications of the ACM, 57(3), 23–25.
http://dl.acm.org/citation.cfm?doid=2566590.2566966

Reading for next lecture:

Tavani Chapter 2: Ethical Concepts and Ethical Theories
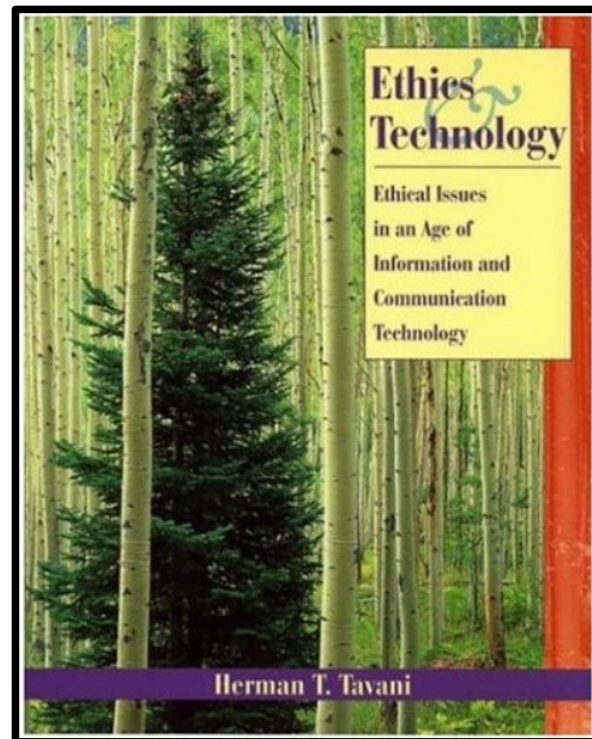
Take-home question

Find example of an ethical issue question or problem that is better addressed by a computer ethics perspective than a philosophical ethics approach (and how are these different?). Or is there no such problem?

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