

Ethics in Computer Science

Technologists and Value-free Technology

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Ethics: The right thing to do...

- Ethics concerns decisions that introduce **harms** and **benefits** to individuals and society.
- Consider the unequal distribution of harms and benefits among separate groups.

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2



Ethics in Computer Science

- Computer technology is *value-free*.
- Business processes and procedures employ technology in a *value-laden* manner.

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Privacy Case Study

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4



Case Study: Mary Boris

- Kentucky resident Mary Boris suffers damage to her home caused by hail and a broken washing machine¹.
- Ms. Boris files four water damage claims with her home owner's insurance company all in the same year.
- In February of 2000, Ms. Boris loses her home owner's insurance...

¹S. Harris, *Private Eye*, GOVEXEC.com, <http://www.govexec.com>

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5



Case Study: Boris v. ChoicePoint (1)

- Ms. Boris is suspected of possible insurance fraud because ChoicePoint (a data broker) reports she filed four claims for fire damage in a short period.
- Ms. Boris informs the Kentucky Department of Insurance and ChoicePoint that the data is incorrect².
- ChoicePoint corrects the data.

²D. Cage, J. McCormic, *ChoicePoint: Blur*, Baseline, <http://www.baselinemag.com>

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6



Case Study: Boris v. ChoicePoint (2)

- Months later, ChoicePoint reports that Ms. Boris has now filed four water damage claims, four fire damage claims and one “excess damage” claim.

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7



Case Study: Boris v. ChoicePoint (3)

- The Fair Credit Reporting Act (FCRA) governs the maintenance and disclosure of consumer reports.
- In 2003, Ms. Boris files suit against ChoicePoint in U.S. District Court and wins an award of \$447,000 for damages.
- Judge John Heyburn II wrote, “[ChoicePoint] repeatedly denied making any mistakes and instead seemed to blame all defective data on others...”

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Case Study: Boris v. ChoicePoint (4)

- ... The problem was only fixed after the incorrect data expired from the system, automatically.

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9



What caused the problem?

- ChoicePoint never reveals the details...

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10



What caused the problem? (1)

- Insurance records are commonly maintained in two database systems: CLUE and A-PLUS.
- The CLUE³ record includes the date, **type of loss** and amount paid by the insurance company.
- The fire damage claims may have been:
 - A data-entry error created by a human; or
 - A data conversion error created by program?

³CLUE and You: How Insurers Size You Up, Privacy Rights Clearinghouse, <http://www.privacyrights.org>

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11



What caused the problem? (2)

- A company called FirstLogic sells software that identifies related data records in order to merge them into a consolidated record.
- ChoicePoint is a FirstLogic customer.
- The recurring fire damage claims may be due to:
 - An upstream data source that received the incorrect data but was never corrected.
 - The incorrect data was then merged with the correct data.

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12



Who is responsible?

■ Obvious suspects...

- Ms. Boris
- The insurance company
- ChoicePoint

■ Hidden actors...

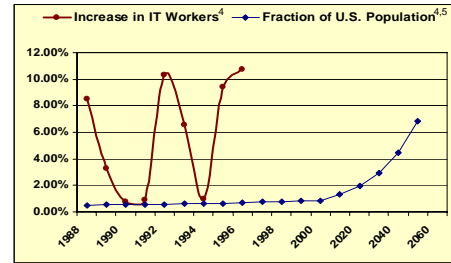
- Business Managers and Analysts
- IT Managers
- Software engineers
- System and Database Administrators

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13



You are not average



⁴P. Freeman, W. Aspray, Supply of IT Workers in the U.S., CRA, <http://www.cra.org>
⁵U.S. Census Estimates 1980-2000, Projections 2000-2050, U.S. Census Bureau

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14



What you can do...

- As employees, protect ourselves (and our employers!) by identifying downstream liability due to harms.
- As citizens, recognize when technology is used in a value-laden manner and educate others to possible harms!

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15

