

CSCI E-2a Assignment 2. Due September 28 at 11:59 pm EDT.
Please email your answers to cscie2a@googlegroups.com

1. As described on p. 26 of *Blown to Bits*, digital footprints are electronic traces we intentionally leave behind, while digital fingerprints are digital trails we unknowingly create. For this week's assignment:

A. Take an inventory of your digital footprints and fingerprints.

Services that may belong in your digital footprint include:

- Email accounts
- Online banking services
- Social networking applications
- Web-based applications (e.g., Google Docs, Flickr)

Services that may leave digital fingerprints traceable to you include:

- Web browsers (cookies, Google Web histories, Amazon browsing history)
- Navigations systems
- Cellular phones
- EZPass
- Supermarket loyalty cards

B. Once you have determined your digital footprints and fingerprints, choose the best explanation for why you have forgone privacy and revealed personal information. If possible, select the reason from one of the 5 listed on pp. 36-42 of *Blown to Bits*:

1. Saving time
2. Saving money
3. Convenience of the customer
4. It's just fun to be exposed
5. Because you can't live any other way

Note that for digital fingerprints, you may not have made a conscious decision to trade-off privacy for any of these reasons. However, now that you are aware of the situation, list the reason that best fits, or indicate that you plan to change your behavior in the future.

2. Learning more about your digital fingerprints:

A. Look through cookies on your own computer. Find at least 3 cookies that you are surprised that you have (e.g., a website you don't recognize, or one where you didn't expect to be tracked when visiting). Also, see if you can find a cookie that reveals personally identifiable information about yourself. For instance, look for your zip code, country of residence, or email address. List the domains where these cookies come from and explain how their existence is surprising.

How to find your cookies:

Viewing cookies using Internet Explorer (Windows):

<http://kb.iu.edu/data/ajfh.html>

Viewing cookies using Internet Explorer (Mac):

<http://kb.iu.edu/data/ajfj.html>

Viewing cookies using Mozilla Firefox:

<http://kb.iu.edu/data/ajfi.html>

Viewing cookies using Safari:

<http://kb.iu.edu/data/amhi.html>

B. Visit this website:

http://www.komar.org/cgi-bin/ip_to_country.pl

Explain how the site can determine:

1. where you are located.
2. what web browser you are using.
3. what operating system you are running.

3. A. Suppose it takes 5 seconds to try one password. How long would it take to try all 8-letter passwords? For the sake of the assignment, we'll call a "letter" one of the 26 lower-case Roman letters a ... z.

(Hint: These calculations are easily done by just typing a formula into Google. You can even do unit conversion by typing things like "50,000*50 seconds in years.")

B. Suppose you knew that the password was an English word. How long would it take to try them all?

(Hint: search online to get an estimate of the number of English words, and state what you found and where you found it.)

4. Only those students who did not view the class live need to answer the following question:

Summarize the Warren-Brandeis articulation of privacy, and contrast it against Alan Westin's more subtle view (see Chapter 2 of *Blown to Bits*). Finally, articulate your own view of the meaning of privacy following the digital explosion (1 page maximum).