The University of North Carolina at Greensboro
CSC 100: The Beauty and Joy of Computing
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Handout 8
November 16, 2012

Homework 3 - Blown to Bits Wrap-up – Due Wednesday, Nov. 28

You have read, and we have discussed, six chapters from the book *Blown to Bits*. For this homework assignment I would like you to think back over those six chapters, and write a couple of pages on what those readings have taught you, and where you think we'll be in ten years on these issues. The guiding principle on length and depth should be whether you can say something convincing with appropriate justification, but for those of you who like more nitty-gritty guidelines I would suggest that you shoot for two pages with one inch margins all around, in 11 point Times New Roman font and line spacing set at 1.5 lines.

When I say "on these issues" in regards to the *Blown to Bits* book, I'm not talking about the technology, but rather about society and governmental issues that arise from the technology. You should pick two specific issues from the topics discussed in the first six chapters of the book - pick and choose the ones that you feel you can address the most clearly. Your writing should include clear justifications and evidence for your statements - it should not be just idle speculation and guessing. The following is a list of some things to think about that you could incorporate into your essay. Hopefully some of these ideas will strike a particular chord with you as an issue that you care about and can write about.

- Are there areas of our lives that are still in the process of being changed by the digitization of everything? Technology makes it easier to both track what people are doing (remember the cell phone towers and location tracking) and to hide from monitoring (remember encryption) - is one of these directions advancing faster than the other? Could you name some specific high-impact technologies that were discussed in the book that suggest what things will look like in ten years?

- How do you think digital privacy and tracking issues will change over the next ten years? Technology obvious exists to track us in lots of ways, from cell phones to financial transactions to RFID tags in clothing - does the government have a role in regulating this? Are people aware of the issues, and is public awareness a factor in adoption or use of these technologies?

- When it comes to digital data formats, what else might be "hidden" inside files in a non-obvious way? Documents or pictures contain a lot of metadata, and files exist beyond when you think they might. Should or will technology be developed to better remove information at appropriate times (e.g., truly deleting information when files are deleted), or do people simply not care enough for this to be an issue?

- Does our increasing reliance on search engines to find information mean that more regulation of those services is warranted? Will search engines start becoming used as regulators of what we are allowed to see (whether restricted by controlling governments, or controlled by copyright holders' interests)? Are there influential factors or entities (commercial or governmental) in searching that should be more openly revealed?

- Will government move to increase control over encryption, or are the crypto wars truly over? What would happen if there were a major terrorist attack, and it was discovered that the planning was done over securely encrypted communication services? Can you draw any lessons from past reactions of society and government to predict how this might be responded to in the future? On the other side, do ordinary people care about privacy enough to use encryption more often?

- How will the balance of power with regard to copyright change in the future? Will technology lock down content so thoroughly that laws are less relevant? Will laws become more draconian and controlling? Will widespread sharing of content destroy previous business models that deal with distribution of creative content? Will services on the Internet be forced to incorporate a massive copyright protection infrastructure due to either government mandate (e.g., SOPA) or pressure from copyright holders?

For your essay, I am expecting you to address at least two areas of technological impact on society. I'm not going to require a specific outline, but a good structure might be as follows: an introductory paragraph that stakes out your basic position and what you're going to address (roughly half a page), followed by a paragraph for each area you are considering that contains justified statements (about ¾ of a page each), followed by a conclusion and summary paragraph that brings everything back together (again about half a page). Whether you follow that outline or not, your position for each area should be justified by concrete facts - you need a minimum of two specific items that show the direction societal impact is heading, and these two items can be stories/facts from *Blown to Bits* or can be clearly documented stories from news or other reliable sources.

Finally, professionalism and a scholarly approach to your writing are important. Spelling and grammar are important, as are clearly constructed sentences that logically make your case. As you look over a draft of your essay, ask yourself the question "Would someone reading this think that it is coming from an educated and thoughtful person?" You better be able to answer that with a resounding "yes"!