Privacy Protection in the Digital Age

Technology has created numerous means of collecting and storing data. Information as mundane as favorite brand of food or drink, movie genre, reading materials or trips an individual likes can easily be digitally stored and linked to the individual's name, income and address. Credit history, employment history, medical information disclosed to insurance companies, and academic records are all stored on computer databases, and can be accessed by marketers seeking to profit through advertising, or investigators seeking to learn about a person.

The rise of the Internet has led to numerous concerns about the prospects of web or email snooping by employers, web hosts, or the government. It is possible, for an Internet Service Provider to track the sites a person surfs on the web. It is possible for an employer to track an individual's emails, both inbound and outbound along with a log of every website visited. The FBI's Carnivore program can track all mouse clicks an individual makes on the Web. Web application drop cookies onto an individual's computer to track the individual's behavior and create an online profile of the individual's interests and habits. These developments raise concerns about informational privacy. What can or should be done about them?

What, if any, information should be shielded from snoopy marketers, government agencies and other entities? Do individuals have a right of informational privacy that should be protected? If so, what sorts of information do we think should be shielded from others' view, and why? Should the government be asked to create privacy rules that protect privacy interests or should consumers be left to negotiate their own privacy protections?

Task:
1. Computer records contain vast amount of personal information. Discuss your answer to the following questions posed above. Also, investigate and discuss the pros and cons of such activity (with supporting materials) including its cause. In summary, is this a good or a bad thing? What do we need to do to optimize the good and minimize the bad? Is the government obligated to protect your "digital security"?
2. Write a report that analyzes various sources for current trends, determine the different positions and provide a conclusion along with your responsibility as a computer scientist.
3. Perform a thorough research on the subject and find references.
4. You must have at least 5 references in your paper. Properly cite the papers and utilize them to make your point accordingly.
5. Grade will be based on supporting materials, accuracy of analysis and overall paper.

Requirements & Deliverables:
1. Work individually, plagiarism will not be tolerated.
2. Your work should be unique enough from others, do not use someone else's idea.

3. Your paper should be a minimum of 3 pages and no more than 5 pages (not including references list).
4. Your paper should have a maximum of 1" margin on all sides and 1.15 spacing maximum with 12 points maximum.
5. Although this is not an English course, make sure that your writing is clear, concise and has proper flow.

Healthcare.gov a Software Engineering Case Study

You were hired to write a preliminary report about Affordable Care Act web application failure. Your client is a major software firm which has competed unsuccessfully for a contract in building the web application. As the firm is in the process of making a strategic move to get some share in the administration drive to repair the mangled Healthcare.gov web application, it is important to the firm upper administration to evaluate the current situation.

Consideration and Limitations:
- Since scores of federal employees and 55 contractors were involved in setting up the Affordable Care Act federal exchanges, it may take years and may be a morass of litigation to sort out exactly what happened. Yet, your preliminary report is urgently needed now.
- All available information is second hand information through Internet and other media sources. Hence, you have to be aware of any misinformation and/or biased information.
- The whole issue of Affordable Care Act has generated a lot of compelling political views from all sides. However, it is understood that your report is only a technical report and as such it will not contain any political view or bias towards any side.
- Your report should also investigate and evaluate claims of bypassing the system through bugs and other security claims.
- In addition, as investigation continues there is new evidence/information that there were independent contractors' reports that conclude the web application is not ready and/or will not be able to function properly.
- It cost the federal government more than $300 millions for outside contractors to setup the Affordable Care Act system. The six biggest contractors are:
    - CGI Federal Inc: $88 million through March 31.
    - Quality Software Services Inc: $55.1 million to setup the data hub.
    - National Government Services Inc: $31.6 million for a consumer call center and premium aggregations.
    - MITRE Corp: $22 million for project management and information technology security.
    - Genova Technology: $16 million for information technology.
    - Terremark Federal Group: $15.5 million for cloud computing services.

Task:
1. Write a report that analyzes various sources for latest information and facts, determine the different positions and provide a conclusion.
2. Perform a thorough research on the subject and find references. Determine whether or not the ACM codes of ethics have been violated. Identify which code was violated and your reasoning.
3. In your report, generate a list of ten critical components in the web application that require repair/modification ranked by their importance and provide your reasoning on the ranking.

4. You must have at least 5 references in your paper. Properly cite the papers and utilize them to make your point accordingly.
5. Grade will be based on supporting materials, accuracy of analysis and overall paper.

Requirements & Deliverables:
1. Work individually, plagiarism will not be tolerated.
2. Your work should be unique enough from others, do not use someone else's idea.
3. Your paper should be a minimum of 5 pages and no more than 10 pages (not including references list).
4. Your paper should have a maximum of 1" margin on all sides and 1.15 spacing maximum with 12 points maximum.
5. Although this is not an English course, make sure that your writing is clear, concise and has proper flow.