

Lab Exercise #9  
*Computer Ethics – Intellectual Property Rights and Privacy*  
*Computer Science 2334*

Your Name: \_\_\_\_\_

~~Group Members:~~ This exercise is to be completed individually.  
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*Learning Objectives:*

- To be able to analyze ethical situations.
- To be able to make ethical judgments based on intellectual property concepts, the consequences of different approaches to intellectual property, and existing legal instruments that protect intellectual property.
- To be able to make ethical judgments based on privacy issues and the consequences of different approaches to privacy.
- To demonstrate your understanding of intellectual property, privacy, and computer ethics through the analysis of several case studies.

*Instructions:*

Read the case studies included included in this lab exercise. Develop and write a response of a few sentences for each case study that addresses the exercise posed at the end of the case study scenario.

You should consider the principles of a professional organization relevant to CS when answering these questions. As discussed in class, it is your responsibility to locate a code of ethics from a relevant professional organization to use in the completion of this lab.

*Use only the space provided for each scenario for your response.*

You should spend approximately 15-20 minutes per scenario.

Once you have completed the exercises in this document, you will submit this lab exercise handout for grading.

At the end of lab, the entire class will discuss these scenarios and the various responses developed by the students.

The cases in this lab exercise were dreamed up by Prof. Hougen. Any similarities to any persons, living or dead, are purely coincidental.

## Scenario 1. (Hypothetical)

Diali works for LeopardGrade Software. One day he is told by his boss Yvette that he needs to prepare a mock-up of a new piece of software their division is proposing to develop, code-named Gigglion. Since it is still in the proposal phase, she tells him that it doesn't need to be a working piece of software. It simply needs to show the layout of some of the menus and views that will be developed if the project is approved. Moreover, they can be static "screen shots" of what Gigglion will look like so that she can use these in her presentation to her own boss Jason who will either approve or reject this project. Yvette tells Diali that he has two days to prepare the mock-up.

Diali doesn't know of any tools to let him create fake menus or views so he's a little unsure how to prepare any fake screen shots. However, he does know of some good "open source" software called BiffleWall that could be used to quickly develop actual menus and views of the types Yvette is requesting. If he uses BiffleWall, all he'll have to do is "hard code" in some model data and toss some parameters in to calls to BiffleWall methods and he'll have a quick though not really functional prototype of Gigglion. Unfortunately for Diali, because of licensing restrictions on BiffleWall, LeopardGrade Software can't sell "closed source" software that includes BiffleWall methods, and LeopardGrade company policy is to only sell closed source software. However, Diali thinks it would probably be okay if he were to use BiffleWall to develop a quick prototype of Gigglion, take screen shots of it, then (if the project is approved) go back and develop their production version of Gigglion without using any code from BiffleWall by replacing the BiffleWall components with components they develop "in house" at LeopardGrade Software.

Diali follows this plan, creates his prototype of Gigglion using BiffleWall, and is taking screen shots when Yvette stops by. She sees him clicking on menus, new views being displayed, Diali manipulating the views, etc. She is impressed! "Wow, Diali," she says to him, "I didn't expect you'd have a working prototype in less than two days!" Diali explains that the prototype isn't really functional, since the model is just hard-coded data at this point but Yvette is still impressed. "Yeah, but you've got menus that drop down and expand based on context and views that overlay and allow user interaction just as we've been planning." "I'm glad you like it," Diali replies.

### Exercises.

Find at least one ethical principle from a professional code of ethics that is relevant to this scenario. List the principle, **give its source**, and *explain* why you think it is relevant.

Say whether you think Diali abided by (that is, followed) the principle you listed and *explain* how you came to that conclusion.

Give one likely motivation for Diali's actions and *explain* how you concluded that was a likely motivation.

List one ethical-decision-making problem that is likely to have contributed to at least one of Diali's decisions and *explain* how you concluded that was a likely problem.

List one ethical-decision-making strategy that Diali could employ to improve his ethical decision making and *explain* how he might employ that strategy in this situation.

Response (Scenario 1):

## Scenario 2. (Hypothetical)

Due to the rapid spread of a particularly deadly strain of bovine flu, Linden's boss at the National Organization for Tracking Contagious Disease Conveyance (NOTCDC) asks her to prepare mapping software to interface with their tracking database so that medical doctors, emergency responders, and decision makers in government can see the home locations, places of work or education, and known sites visited, of all individuals who have been confirmed to have contracted this strain of bovine flu, and of all individuals who are known to have come into first-hand contact with such infected persons.

Linden knows that different users of the system will need to create maps using many different types of computers running many different operating systems. She also knows that users will have widely different levels of computer expertise. Linden decides to implement this with a Java applet that can be accessed by entering just two pieces of information: An address (including city and state, optionally including a street address) for the center of the map to be created and a magnification value for the map. The applet will pull the relevant address data from the NOTCDC tracking database and utilize Google Maps both to request geolocations (latitude and longitude pairs) corresponding to database addresses and to plot the final map for the user (much the same way as your Project 4). Infected individuals and contact individuals are not identified by name.

Because the NOTCDC office in which she works uses only Windows Vista and only Internet Explorer, she loads the applet onto her web space at work, then heads home and tests it by connecting in and downloading the applet to her home machines which include a Mac running OS X and Safari and a PC running Linux and Firefox. The applet successfully displays outbreak maps for all the regions she tries.

### Exercises.

Find at least one ethical principle from a professional code of ethics that is relevant to this scenario. List the principle, **give its source**, and *explain* why you think it is relevant.

Say whether you think Linden abided by (that is, followed) the principle you listed and *explain* how you came to that conclusion.

Give one likely motivation for Linden's actions and *explain* how you concluded that was a likely motivation.

List one ethical-decision-making problem that is likely to have contributed to at least one of Linden's decisions and *explain* how you concluded that was a likely problem.

List one ethical-decision-making strategy that Linden could employ to improve her ethical decision making and *explain* how she might employ that strategy in this situation.

Response (Scenario 2):