

## Assignment 2

Due on October 27, 2010, at the beginning of class

Please make sure your assignment satisfies the following basic requirements:

- printed *on normal paper* and **stapled**,
- showing your name in the top right corner,
- using 12 pt serif font (like Times New Roman),
- using 2 cm margins,
- showing **the number of words after every answer**.

Assignments that fail to satisfy those requirements may be returned. The students will be asked to resubmit the assignment and will incur late penalty.

When answering the questions, make sure to cite *all sources* on which you are basing your answer. Please note, however, that citations to **assigned readings** may be necessary for full credit.

Use **APA style** and include page numbers. (E.g. “Raymond, 1998, p. 2.”) For readings included in the course pack with unnumbered pages, assume that the first page included in the course-pack is p. 1, then count from there. Include an APA-style bibliography section at the end of your assignment.

**Any sequence of two or more words** copied from any source (readings, slides, other students notes, etc.) and not originally written by you individually **must be in quotation marks**. Failure to use quotation marks will be considered an academic offense and will be handled accordingly. *This rule applies whether or not the source is identified.* (Failure to identify the source makes the offense yet more serious, but is not a necessary component of plagiarism.) Here are some examples of proper and improper use of sources:

According to Raymond (1997, p. 5), with a large enough beta-tester and co-developer base, almost every problem will be characterized quickly and the fix obvious to someone.  
**[Plagiarism: verbatim copy without quotation marks.]**

According to Raymond (1997, p. 5), if you have enough beta-testers and co-developers nearly all problems will be characterized quickly. The fix will be obvious to some person. **[Plagiarism: the text shows only trivial differences from the original.]**

According to Raymond (1997, p. 5), with enough beta-testers and co-developers it becomes possible to quickly characterize the problems: for some person the fix will be obvious.  
**[Border line: the text shows differences from the original, but it is fairly obvious that the author started with a direct quotation and then made some changes just so that it is not a verbatim copy. Multiple sentences of this kind can constitute plagiarism.]**

According to Raymond (1997), “given a large enough beta-tester and co-developer base, almost every problem will be characterized quickly and the fix obvious to someone” (p. 5).  
**[Not plagiarism: the author uses quotes to indicate that those are Raymond’s words. However, this answer does not make it clear the author understands what Raymond actually means. The author may get less than full credit.]**

Raymond (1997) argues that having a lot of people testing the code and contributing as “co-developers” allows all problems to be found, understood, and fixed quickly. **[Good]**

## Part A (100 points)

Answer each of the following questions in **100 words or less**. Each question is worth 10 points.

1. What is the meaning of Scotchmer's story about the Board of Longitude?
2. From the economic point of view, what are the most important aspects of "information goods" and what challenges do those aspects present?
3. Patents and copyright are legal monopolies and therefore lead to "monopoly pricing." What factors determine monopoly price?
4. What does Scotchmer mean when she writes: "Despite its ex post defects, the main justification for intellectual property is made from the ex ante perspective."
5. What are the advantages and disadvantages of "blue-sky prizes" (compared to other kinds of prizes)?
6. When did IBM start charging customers for its software, why, and what was the main effect of this?
7. Stallman writes: "The modern computers of the era, such as the VAX or the 68020, had their own operating systems, but none of them were free software: you had to sign a nondisclosure agreement even to get an executable copy." If we did not know what time he was describing, what could we guess about the timing of those events from the second half of the sentence (after the colon)? Explain how we would make such conclusion and cite other authors to support your analysis.
8. In "The GNU Project" Stallman examines three "unstated assumptions" relevant to the discussion of intellectual property. How would an economist respond to Stallman's analysis of the third assumption?
9. Stallman writes: "The worst threat we face comes from software patents." Why do you think he considers software patents a worse threat than stronger copyright protection? (Explain the specific effects that patents and copyright have on producers of free software.)
10. Stallman writes: "Extracting money from users of a program by restricting their use of it is destructive because the restrictions reduce the amount of wealth that humanity derives from the program." What is the economic term for the "reduction of wealth" that Stallman describes? How might an economist respond to Stallman's analysis?

## Part B (30 points)

Answer the following two questions in **200 words or less**. Each question is worth 15 points and asks you to identify **three** examples/problems. You will get up to 5 points per example/problem.

1. Imagine that you have learned that Canadian government is planning to establish "Department of Free Software." The Department will be tasked with identifying the software needed of Canadian citizens, producing such software (either by hiring programmers directly or by paying companies to develop it) and then making the software available for free and releasing the source code under some kind of free software license. The department will have a budget of around one billion dollars. Identify and explain **three potential problems** with this plan.
2. Identify **three** sources of material support for Stallman's work on the GNU Project in Moody's "The New GNU Thing" that would correspond to **three different methods** of supporting innovation discussed by Scotchmer.

### Part C (20 points)

Find a registered non-profit foundation (or association<sup>1</sup>) whose primary mission is supporting *specific* free / open source software projects. (Do not pick foundations that are dedicated to support of free / open source software *in general* or support open source projects as a secondary activity.) Do *not* use any of the foundations discussed by O'Mahony. If you discuss this assignment with any other student, make sure you do **not** use the same foundation. Locate the foundation's official governing documents: by-laws, charter, articles or incorporation, etc. (If you cannot find any of those, pick another foundation.)

Answer each of the following questions, citing specific documents:

1. What is the name of the foundation?
2. When and where was it incorporated?
3. What is the foundation's official mission?
4. What are some of the specific projects that it funds?
5. Where does the foundation get its money?
6. Does the foundation have a for-profit arm? If so, what does it do?
7. Are donations to the foundation tax-deductible? Is the foundation a "registered US 501(c)(3)"?
8. Who makes decisions on behalf of the foundation? Are those people elected? If so, by whom?
9. Does the foundation hold trademarks for any of the projects that it supports?
10. Does the foundation employ any people? If so, what do they do? If not, who does the work?

You can use **up to 100 words** to answer each question, though shorter answers would be sufficient in most cases. If some of those questions cannot be answered, explain why not and what you did to try to answer it.

*Please include **an APA-style bibliography** at the end of your assignment. Assignments without a properly formatted bibliography **may lose up to 5 points**. This penalty will be subtracted from your total score and will be **in addition to** any points taken off for specific answers that fail to correctly document sources.*

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<sup>1</sup> Please note that the terminology may differ by country.