Midterm: Compsci 82

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You'll be given prompts for five questions. For each question write a few sentences to two paragraphs addressing the question. Answer the questions on the paper provided after the questions. Each answer will be graded on a 0-3 scale: skipped, fair, good, excellent. Your midterm grade will be 12-15=A-range, 8-11=B-range, 4-7=C-range, 1-3=D-range, 0=F.

PROBLEM 1 : (*What (Internet)*)

In class we heard a clip from former U.S. Senator Ted Stevens saying "the Internet is a series of tubes" and "it's not a big truck". In 2008 Declan McCullagh of CNET wrote:

> The irony is that Stevens' famous analogy of a "series of tubes" was an entirely reasonable one. ... And an Internet RFC from as long ago as 1989 refers to "filling the pipe" so "that the sender of data can always put data onto the network."

Write **one or two sentences** that reasonably and accurately describe what the Internet is.

PROBLEM 2 : (*When (IPv6)*)

The quote below is from a U.S. Government publication dated May 2009.

> However, in order to realize the benefits offered by IPv6, it is important for the Federal Government to begin the process of architecting and deploying secure IPv6 enabled network services.

> Based upon current forecasts by leading experts, the world's current allocation of IPv4 address spaces from the global pool will be exhausted by 2011-2012.

In a **few sentences to a paragraph**, why is the government moving to adopt IPv6 and how will that adoption fix the exhaustion referenced above?

PROBLEM 3 : (*How (Open Source)*)

In a Sept 29, 2009 article by Dana Blankenhorn we find the following remark about possible open source monopolies:

> If everything were open source, or one open source implementation controlled a market, would that be an illegal monopoly? Antitrust law is about more than market share. It's about using that market share to destroy competition. A monopolist must take an overt action against another company before the Justice Department is going to take a look at it. ... An open source monopoly is simply not a barrier to competition. Even if a GPL program had market dominance you could still compete with it.

In a **few sentences to a paragraph** explain how open source and a GPL program couldn't be used to create a monopoly. In your answer make sure you convey that you understand what open source is.

PROBLEM 4 : (*Who (put the P in BGP?)*)

In *Protocol Politics: The Globalization of Internet Governance* by Laura DeNardis we find this quote about open standards:

> Open standards enable competition. . . . Open standards promote maximum technical interoperability . . . it is a misnomer to call a proprietary (or closed) specification a "standard" because this nomenclature implies some degree of coordination and use by multiple parties. A single company develops, owns, controls, and uses a proprietary specification. By definition, the company does not make the proprietary specification available for adoption by any other company, so it is inherently not interoperable with any products made by other companies . . . A completely closed development process for a proprietary specification involves a single company so issues of procedural fairness, consensus decision making, recording dissent, or dealing with procedural violations are irrelevant.

Assuming the claim above is true, **write a few sentences to a paragraph** in which you explain whether the IETF creates open or proprietary standards

PROBLEM 5 : (*Why (ethics and copyright)*)

A Harvard student has started a website *finalsclub.org* to foster sharing notes taken by students in courses from Harvard and other universities. In a quote from the Harvard Crimson in February 2009, we find:

> In the spring of 2008, a professor asked that a blog about his course be removed from the Web site or that the blogging student would face expulsion. The student immediately took down the blog.
>
> In response to the incident the University Office of the General Counsel wrote in an e-mail that "under the federal Copyright Act of 1976, a lecture is automatically copyrighted as long as the professor prepared some tangible expression of the content—notes, an outline, a script, a video or audio recording."
>
> "We have to respect a professor's intellectual property" said Andrew J. Magliozzi '05, founder of `finalsclub.org`.
>
> According to Magliozzi, the company has since taken steps to avoid additional conflicts with the University. When a course blog or class notes are posted to the site, the course's professor is notified by e-mail. The professor can then choose to "opt-out" and have lecture blogs removed from the Web site.
>
> Other institutions such as Yale, Columbia, MIT and Stanford have already adopted "open courseware" programs that allow the general public free access to lecture notes, exams and videos online.

The `finalsclub.org` site is a non-profit venture, the founder has filed for non-profit status and says he does not plan to make money from the site. Students are not paid for posting material on the site and do not need to pay to use the site.

Do you think student preparation and sharing of notes for a course as done in `finalsclub.org` is different from commercially available books like Cliffnotes or Sparknotes which condense and summarize works of literature? For example, Alice Walker's *The Color Purple* is 308 pages long. The CliffNotes version of "The Color Purple" is 80 pages long. The SparkNotes version is 62 pages long. These abridged and annotated versions have been upheld as legal under U.S. Copyright law even when the books they report on are copyrighted.

Write a paragraph or two in which you explore the ethics and legality of the note-sharing site `finalsclub.org` or similar sites like `coursehero.com`. Take a position and argue for it.

Problem 1

Problem 2

Problem 3

Problem 4

Problem 5