

Introduction to Web Science

Assignment 12

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This assignment is about **Net Neutrality & Copyright**

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Team Name: India

1 Copyright & Creative Commons (10 points)

1.1 Differences

On what grounds can you differentiate between Copyright and Creative Commons?

Answer:

Copyright : It is a way to protect the “original works of authorship” of published and unpublished work.

Creative Commons : It is actually a license that is applied to a work that is protected by copyright. It's not separate from copyright, but instead is a way of easily sharing copyrighted work.

- Copyright is about power and Creative commons is a way to protect freedom
- In Copyright, Consumer cannot decide what he can do. only the copyright / license owner can decide. While Creative Commons is actually a license that is applied to a work that is protected by copyright. It's not separate from copyright, but instead is a way of easily sharing copyrighted work.
- For example , Microsoft Windows : Not allowed to modify the software as we wished to. but freedom to run the software if you have license.

1.1.1 Case Study

Let us consider that Donald has an idea to develop a study material for the poor children from his area who cannot attend a school. But in order to have this idea as a product, he needs some financial help from investors so that he can collect materials and also to set up a website where kids can study for free using the materials and videos he makes for them. But Donald wants it to be completely free and shareable so that it can help anyone.

Answers :

- **Can Donald's *idea* be copyrighted?**
Copyright protects the expression, so an Idea can't be protected under copyright. If the idea qualifies minimum three criteria novelty, inventive step and industrial applicability and is not barred by sec 3 of Patent Act, then the idea can be tried for patent. So, Donald's idea can not be copyrighted but if he develop a website which can be creative for helping poor kids , can be copyrighted.
- **How can Donald protect his idea when he presents it to the investors?**
Ideas alone cannot be protected, so you need to think in terms of invention. Inventions

can be patented. You just have to get from idea to invention. Means investors do not trust Donald based on his idea only. So in order to protect his idea he can propose a Proof of Concept as his idea (Could be a paper work or a small web page as model), while presents to the investors.

- **Since the investors are investing capital, can they still recover money if Donald wants to go for the Creative Commons licenses? If so, state the ways?**

Of-Course Yes , Investors can recover money if Donald use legal platform for deliver his idea to market using Open educational resources (OER) released under Creative Commons licenses. Idea create a license authors can choose to grant consumers rights and freedoms. Educators, students, schools, and governments are investing in open education in big ways, and those investments are paying off. So investors can earn by this. Growth of freely licensed materials are increasing year by year. The other ways for investor to earn money from Donald website and idea is :

1. They can use google advertisement.
2. They can do marketing and give a brand support for it.
3. Advertisement through social media can also help in earning and spreading about his idea fastly.

Reference :

<https://whenihavetime.com/2009/02/24/a-guide-to-copyright-and-creative-commons/>

<http://www.workmadeforhire.net/the-rest/whats-the-difference-between-copyright-and-creat>

<https://wiki.creativecommons.org/images/c/ce/Future-of-creative-commons.pdf>

2 Neutrality(10 points)

- Define the term *net neutrality*.

Answer :

Net Neutrality is the principle that Internet service providers should enable access to all content and applications regardless of the source, and without favouring or blocking particular products or websites.

- Argue for and against the motion on the concept of priority pricing as discussed in Kögler et.al(2011)¹

Answer:

1. Strict net neutrality means that any data packet of any service should be treated strictly equal, independent of origin, destination and type of service, no matter what the economic value of congestion-free conveyance actually is.
2. It appears that priority aging changes the priority of a task (usually lower) depending on how long the task has been running and / or how many resources the task consumes.
3. Priority aging can automatically change the priority of in-progress activities over time. You can use priority aging to control longer-running activities, so that throughput for shorter-running activities can be improved.
4. The biggest advantage of priority aging : A simple approach that you can use to help short queries to run faster is to define a series of service classes with successively lower levels of resource priority and threshold actions that move activities between the service subclasses. Using this setup, you can decrease, or age, the priority of longer-running work over time and perhaps improve response times for shorter-running work without having detailed knowledge of the activities running on your data server.
5. The biggest disadvantage is that priority aging is harder to implement than a first-in, first-out queue, and may not provide any response time improvement.
6. It will be concluded that the European approach, which relies on trusting in market forces combined with the soft regulation of adequate transparency rules and a sufficient degree of competition, will lead to an efficient outcome.

¹Berger-Kögler, U. and Kruse, J. (2011) ‘Net neutrality regulation of the internet?’, Int. J. Management and Network Economics, Vol. 2, No. 1, pp.3–23.

- **Explain why?**

”...additional internet capacity would not lead to additional revenues because of the flat rates.”¹

1. Costs of communications networks are determined by the maximal capacities of those networks. On the other hand, the traffic those networks carry depends on how heavily those networks are used. Hence utilization rates and utilization patterns determine the costs of providing services, and therefore are crucial in understanding the economics of communications networks.
2. A comparison of utilization rates and costs of various networks helps disprove many popular myths about the Internet. Although packet networks are often extolled for the efficiency of their transport, it often costs more to send data over internal corporate networks than using modems on the switched voice network.
3. Packet networks are growing explosively not because they utilize underlying transport capacity more efficiently, but because they provide much greater flexibility in offering new services.
4. Study of utilization patterns shows there are large opportunities for increasing the efficiency of data
5. transport and making the Internet less expensive and more useful. On the other hand, many popular techniques, such as some Quality of Service measures and ATM, are likely to be of limited usefulness.

Reference :

<http://stackoverflow.com/questions/3155096/priority-aging-as-a-process-scheduling-strate>

<http://www.dtc.umn.edu/~odlyzko/doc/internet.rates.pdf>

Important Notes

Submission

- Solutions have to be checked into the github repository. Use the directory name `groupname/assignment12/` in your group's repository.
- The name of the group and the names of all participating students must be listed on each submission.
- Solution format: all solutions as *one* PDF document. Programming code has to be submitted as Python code to the github repository. Upload *all* `.py` files of your program! Use UTF-8 as the file encoding. *Other encodings will not be taken into account!*
- Check that your code compiles without errors.
- Make sure your code is formatted to be easy to read.
 - Make sure you code has consistent [indentation](#).
 - Make sure you comment and document your code adequately in English.
 - Choose consistent and intuitive names for your identifiers.
- Do *not* use any accents, spaces or special characters in your filenames.

Acknowledgment

This latex template was created by Lukas Schmelzeisen for the tutorials of "Web Information Retrieval".

L^AT_EX

Currently the code can only be build using [LuaLaTeX](#), so make sure you have that installed. If on Overleaf, there's an error, go to settings and change the L^AT_EX engine to LuaLaTeX.