Introduction to Web Science

Assignment 12

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

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1 Copyright & Creative Commons (10 points)

1.1 Differences

On what grounds can you differentiate between Copyright and Creative Commons?
Answer:
Creative Commons: Creative Commons is a non-profit organization that provides licensing structures people can use to license their copyrighted work to anyone willing to abide by the licensing terms. It makes it easy to share work without giving up total control or spending countless hours granting permissions.
Copyright: Copyright is a way to protect the "original works of authorship" of published and unpublished work, usually expressed in a tangible way. On a high level these types of works are protected. Several of these categories are directly applicable to content made available online. When you create something truly original: a song, a photo, a story, a blog post or a video, you automatically have an all-rights reserved copyright for that work.

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.

- Can Donald's *idea* be copyrighted?
  Answer: Donald's idea to develop cannot be Copyrighted.As, Copyrights protect expression and patents protects inventions, and neither protect ideas. But his idea can lead to innovative of education platform which can be Copyrighted. So along with Donald's Idea and education platform can be copyrighted.
- How can Donald protect his idea when he presents it to the investors?
  Answer :
  Ideas alone cannot be protected, so we need to think in terms of invention.Inventions can be patented. We just have to get from idea to invention. That 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 , while presents to the investors.
- Since the investors are investing capital, can they still recover money if Donald wants to go for the Creative Common licenses? If so, state the ways?
  Answer :
  If Donald use Creative Common License investors can still make money from this platform as copyrighter can use their own term to use the platform. Donald can

use terms which directly helps the platform such as who ever distribute his content should attribute Donald platform which helps to generate a traffic to the platform. Donald's can put different advertisement on the platform as means of revenue. They can do marketing and give a brand support for it.Advertisement through social media like Facebook can also help in earning and spreading

2 Neutrality(10 points)

- Define the term *net neutrality*.
  Answer
  Net neutrality is the principle that Internet service providers and governments regulating the Internet should treat all data on the Internet the same, not discriminating or charging differentially by user, content, website, platform, application, type of attached equipment, or mode of communication.

- Argue for and against the motion on the concept of priority pricing as discussed in Kögler et.al(2011)[1]
  Answer
  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. It appears that priority aging changes the priority of a task depending on how long the task has been running how many resources the task consumes. 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. 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. However, by that setup, we can decrease 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.

- - Explain why?

  > "...additional internet capacity would not lead to additional revenues because of the flat rates."[1]
  > Answer
  > 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. 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. Moreover, packet networks are growing explosively not because they utilize underlying transport capacity more efficiently, but because they provide much

[1] Berger-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.

greater flexibility in offering new services. Study of utilization patterns shows there are large opportunities for increasing the efficiency of data transport and making the Internet less expensive and more useful.

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".

LaTeX

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 LaTeXengine to `LuaLaTeX`.