**Explore Task Benefits-Harmful Effects**

Name of the Innovation:  Bittorrent protocol

BE SPECIFIC and list **one benefit (or potential benefit)** to society, economy, or culture that can come from the computing innovation.

Decentralization of the internet and increased control over domains on the internet by powerful users.

List two statements that support your **benefit** listed above. One benefit must come from an article you have chosen and needs to have the **author’s name** at the end of the statement in parentheses.

A decentralized internet allows users to have more control over their domains and prevent large companies from gaining large amounts of traffic to their sites. If people do not like the practices of a company, they can use a site created by a user who also wanted an alternative.

“A decentralized Internet would be much more resilient than today’s framework of central servers, in spite of the associated piracy often in the news headlines. There aren’t much the authorities can do to prevent BitTorrent users from exchanging files. But users need to know that downloadable files are available, and then search torrents on centralized torrent sites such as The Pirate Bay. The centralized torrent sites are vulnerable to copyright enforcement countermeasures, ranging from domain seizure to actual server seizure.” (Giulio Prisco)

<https://bitcoinmagazine.com/articles/bittorrent-powered-zeronet-decentralized-web-pioneers-peer-to-peer-file-transfers-1457103175/>

BE SPECIFIC and list **one harmful effect (or potential harmful effect)** to society, economy, or culture that can come from the computing innovation.

Increased distribution of copyrighted material by non-licensed users.

List two statements that support your **harmful effect** listed above. One harmful effect must come from an article you have chosen and needs to have the **author’s name** at the end of the statement in parentheses.

The Bittorrent protocol allows copyrighted materials more easily because tracker files are distributed instead of the actual content. The tracker files are not copyrighted themselves so the protocol is not liable for the content which is hosted. The protocol is not owned by anyone so it is hard to target sources of the seeds themselves. The entire protocol is also encrypted which also increases difficulty of finding sources of files.

“For the past decade, if you wanted to download copyrighted material and didn't want to pay for it, it's likely you turned to [The Pirate Bay](https://www.engadget.com/2009/07/18/pirate-bay-owners-announced-give-and-take-model-proclaim-files/). Up until a police raid took it [offline last week](https://www.engadget.com/2014/12/09/swedish-police-raid-the-pirate-bay-and-knock-the-site-offline/), it was the most popular place to grab Sunday's episode of The Newsroom or [Gone Girl](https://www.engadget.com/2014/09/13/recommended-reading-9-13-14/) months before the Blu-ray hits stores…Instead of hosting the copyrighted material itself, The Pirate Bay maintained a database of the tracker files needed for users to download the "torrents" -- not the actual copyrighted content. Because you need a separate piece of software to actually use the torrent file and illegally download the content, The Pirate Bay saying it personally doesn't break copyright law is technically accurate.” (Timothy Seppala) <https://www.engadget.com/2014/12/16/pirate-bay-shutdown-explainer/>

Using the details above, explain at least one beneficial effect and at least one harmful effect the

computing innovation has had, or has the potential to have, on society, economy, or culture in approximately 200–250 words. Write your response in the space below.

The protocol has allowed whistleblowers of governments to expose issues within governments and corporations. Many important documents have been released and mirrored on the protocol, including most of the documents released through WikiLeaks. Protecting whistleblowers is an extremely important initiative because of the increased power of governments and corporations. These organizations can and will protect secrets of their malicious practices to save their public appeal. Bittorrent also affects culture. The increased availability of movies, music, software, and other proprietary data. People who could not afford these products now have the ability to view them. I have to include that I do not condone the unlicensed distribution of copyrighted materials. Bittorrent has also affected the economy in many ways. Besides the distribution of copyrighted materials affecting publishers and studios economies, Bittorrent has allowed websites to be hosted with a peer to peer system. The site is not available unless people are using it. This system is superior to centralized hosting for static sites that do not rely on databases, or constantly running systems because computer power is only used when people access the site. An example of this peer to peer hosted website is ZeroNet. ZeroNet allows people with little knowledge of building and maintaining websites to share information over the internet.