ICS2O0/3C0/4C0 C.2 Bitcoin Mining Name: James

Read the following resources before answering the questions below:

i. <https://www.theglobeandmail.com/report-on-business/rob-commentary/cryptocurrencys-crash-is-a-matter-of-when-not-if/article37257013/>

ii. <https://www.cbc.ca/news/business/hut8-medicine-hat-bitcoin-mining-1.4834027>

iii. <http://www.bbc.com/news/business-42237432>

Guidelines for writing a supported opinion paragraph (SOP)

· <http://schools.peelschools.org/sec/fletchersmeadow/studentlife/OSSLTprep/Documents/Sample_%20Writing%20a%20Supported%20opinion%20paragraph.pdf>

**Level 1: Bitcoin & Cryptocurrencies**

1. List three ways that “cryptocurrencies” (e.g. Bitcoin) are different from traditional currencies (money).

* Lack the support of an already established government or financial association, and purchases happen under an “anonymous” cloak.
* Bitcoin to dollar conversions in due time will need to carry out a purchase that joins their cryptocurrency wallet with their bank account.
* Cryptocurrency purchases usually take 10-20 minutes to approve, once in a while they come with delays upwards to a couple days.

2. List one advantage of Bitcoin over online payment services such as PayPal.

* The market is driven by miner and payer agency

3. List three types of organizations (or types of users) that would benefit in a positive way from the use of “cryptocurrencies”.

* Criminal hackers
* Entrepreneurs
* The “average joe”. The ones that occasionally dip into bitcoin every now and again to buy or sell things.

4. Bitcoin claims to be anonymous. Is this true (explain)? How could someone find out your identity?

No, it isn’t true. Each transaction is associated with the sender's and receiver's bitcoin wallet address. And anyone who wants to convert bitcoins into dollars, to facilitate spending in the real world, will need eventually to perform a transaction that associates their cryptocurrency wallet with their bank account (and personal identity). Additionally, regulatory agencies have begun demanding data from cryptocurrency exchanges in an effort to identify money launderers and tax evaders.

5. Many people claim that the use of "cryptocurrencies" should be restricted because they make it easier for criminals to hide their actions. Is this a valid point of view? Write a SOP to support your argument.

I believe they should be restricted. Though there are ways that people can track you, the conversions are always a gamble and the regulatory agencies that supposedly track your spending whether that be in cash or a card of some sort, and insist on getting tracking information will further hinder your chances. Not only that, but since the recent resurgence of bitcoin as this rather potent digital currency, websites you would normally use like Expedia, KFC Canada, Subway and Microsoft, pretty much have access to your cryptocurrency account as well as your bank information, so there’s always a risk when purchasing with bitcoin.

**Level 2: Bitcoin & The Environment**

1. What is a Bitcoin “miner” and how big is the Hut-8 facility in the city of Medicine Hat Alberta?

**Bitcoin mining** is the process by which transactions are verified and added to the public ledger, known as the blockchain, and also the means through which new **bitcoin** are released. ... The **mining** process involves compiling recent transactions into blocks and trying to solve a computationally difficult puzzle. Toronto-based Hut 8 has spent more than $100 million to develop the 4½-hectare site on the northern edge of the city. It has 56 shipping containers, each filled with 180 computer servers that digitally mine for bitcoin around the clock.

2. Why has Hut-8 decided to locate its facility in Alberta when its head office is in Toronto? What does the city of Medicine Hat provide that is required for mining Bitcoin?

The bitcoin mining facility is located right beside the city of Medicine Hat's new natural gas-fired power plant and four wind turbines are a short distance away. The bitcoin plant can consume more than 60 megawatts of power, more than 10 times more electricity used by any other facility in the city, according to the mayor. The vast amount of electricity needed for bitcoin mining is why the city of Medicine Hat has championed the economic benefits of the project.

3. What benefits does the city of Medicine Hat expect to see from this Bitcoin facility?

Medicine Hat owns its own natural gas and electricity generation and distribution businesses. The city leases the land to Hut 8 and the facility employs 40 full-time workers. Add up the economic benefits and the city of Medicine Hat will receive a significant financial boost from the new project, says Ted Clugston, the city's mayor.

4. What concern does the city of Medicine Hat have about from this Bitcoin facility?

Environmental groups are concerned by the sheer amount of energy consumed by bitcoin mining, especially in places like Medicine Hat where most of the electricity is produced by fossil fuels.

5. What concern do environmentalists have about the Medicine Hat facility and about Bitcoin mining in general? E.g. how does Bitcoin mining harm the environment?

[Hut 8] is not here for renewable energy because it is not reliable. They need gas-fired generation and we have it in spades,” said Clugston. "The way the bitcoin algorithm works is that it's designed to waste as much electricity as possible. And the more popular bitcoin becomes, the more electricity it wastes," said Keith Stewart, a spokesperson for Greenpeace.

6. If Hut-8 wanted to build a facility in Brampton, would be in favor of this proposal. Write a SOP to justify your position.

I would not at all be in favour of this proposal. For one, I’ve heard of the astronomical prices Brampton houses cost, so buying that extremely nice looking yet expensive house gives you an option: do I use everything the house has to offer, or do I mine bitcoin in hopes of getting lucky and it being worth hundreds of thousands of dollars? That’s a choice I’m less than thrilled to make, and will choose the former instead of the latter. There simply isn’t room for a dedicated bitcoin mining facility. If it were something to be considered, it’d cripple more than heal the city.

**Level 3: Mobile Payments**

1. Explain how you could use social media to make payments for things you buy in the store.

I could use something like Facebook messenger and send a payment message to get for example, a video game from a friend.

2. List three ways that social media payments are a positive thing.

* Socialization of payment i.e. paying a friend for dinner and comment a review
* Quick and easy considering the potency of social media
* Big companies like Google and Facebook can use their social media platforms and make money off of it.

3. List three ways that social media payments are a negative thing.

* The growing worthlessness of banks when using this method
* Financial information should be kept private.
* Your phone is now more viable than ever to unsuspecting victims of criminal hackers

4. Is Canada ahead of or behind other countries in the use of mobile payments? Explain your answer.

I’d say it’s behind for the pure fact that you don’t really see mobile payment options advertised that often on tv. As such I’d say it’s very hidden and not a lot of people know about it. Case and point, me. If Canada’s really wanting to join the future towards a mobile way of paying, they’ve got to push it as much as they can. It’s been proven to work with Facebook and Paypal’s apps, so why not approve it in Canada?

In your opinion, should mobile payments be allowed in Canada? Write a SOP to justify your position.

Although Canada could definitely push for this mobile payment method, I don’t think it’s a smart move. You make a good amount of doing so, yes, but you’re just begging for someone to get ahold of your financial information and make transactions without your input. It’s quick and easy, but so is getting into a car, driving to the bank, withdrawing money and going to a nearby restaurant to then pay for your meal. How easy do us humans want to get something so bad? Walking far distances became tedious, so we built modes of transportation to make getting from place to place faster. We wanted to communicate with our friends or family from other parts of the world, so we made cell phones. Now we want to pay using our phone when we can use a mode of transportation, which is already faster than walking? You can’t have your cake and eat it too.