**Blockchain technology and Electronic Money exchanges. What Could this relatively new cashless payments/commerce system mean for Businesses.**

You are expected to review a number of sources in investigating your topic. Examples include:

<http://www.itworldcanada.com> <http://whatis.techtarget.com> [www.livescience.com/technology](http://www.livescience.com/technology)

Incorporate Porters forces and other ideas

1. Intro (Will)

* Agenda

1. What is crypto (Will)

* Who came up with idea of crypto
  + Satoshi Nakamoto
    - Little is known about them
    - Their last communication was in april 2011
    - Holds roughly 980,000 (valued at $68.2 billion today)
    - <https://www.investopedia.com/tech/three-people-who-were-supposedly-bitcoin-founder-satoshi-nakamoto/>
* What is Crypto
  + Digital or Virtual Currency
    - Secured by cryptography
      * Makes it incredibly difficult to counterfeit
  + Not issued by a central authority
    - Makes it difficult for govt to regulate
  + <https://www.investopedia.com/terms/c/cryptocurrency.asp>
  + Blockchain
    - decentralized technology spread across many computers that keeps track of transactions

Examples of products, vendors, or companies that use the particular technology.

Where is it used and for what

1. Examples (Brent)

* Ethereum (ETH)
* Litecoin (LTC)
* Cardano (ADA)
* Polkadot (DOT)
* Bitcoin Cash (BCH)
* Stellar (XLM)
* Chainlink.

1. Where s crypto used

* <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>
* <https://www2.deloitte.com/us/en/pages/audit/articles/corporates-using-crypto.html>
* <https://www.investopedia.com/ask/answers/100314/what-are-advantages-paying-bitcoin.asp>
* <https://www.euronews.com/next/2021/08/29/paying-with-cryptocurrencies-these-are-the-major-companies-that-accept-cryptos-as-payment>
* <https://www.nasdaq.com/articles/7-major-companies-that-accept-cryptocurrency-2018-01-31>
* <https://builtin.com/blockchain/blockchain-companies-roundup>

1. Whats crypto used for (Brent)

* Online purchases
* Online trading (investing)

1. Advantages (Will)

* Protection from inflation
* Self-Governed
* Secure
* Ease of exchange
* Decentralized
* <https://www.geeksforgeeks.org/advantages-and-disadvantages-of-cryptocurrency-in-2020/>

1. Disadvantages (Will)

* Easily used for illegal activities
* Data loss can cause financial loss
* Decentralized to an extent
  + Still managed by the company or people who made the currency
* Increased Carbon Footprint due to mining
* Hacking
* No refunds
* <https://www.geeksforgeeks.org/advantages-and-disadvantages-of-cryptocurrency-in-2020/>

1. Future possibilities for Crypto (Xavier)
2. Conclusion (Xavier)

* F

Works cited

* F

URL page

Report:

Report Prepare a report that covers your assigned technology topic, which is minimum 4 and maximum 5 printed sheets of paper (print on both sides of the physical sheet of paper = 8-10 pages when numbered), plus a Cover & Reference pages. It must be single spaced, APA format, 12-point font

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2021-11-29

**Cryptocurrency and the Blockchain**

**Introduction**

Throughout the past decade we have seen an incredible surge in technological innovations such as VR and AR technology, 5G technology, and many other advancements that have helped make our daily lives easier or more enjoyable. However, the most notable of these advancements is arguably the creation and rise of Cryptocurrencies. Cryptocurrencies have gone from a simple idea in someone’s head to being one of the leading modes of exchange in the modern age. Yet, many people still may not know exactly what “Cryptocurrency” is, and how it affects them, business, and the world around us. In this report we will cover not only what crypto currency is, but also what they are used for, what their future holds, and provide some examples both of vendors of crypto currencies, and some examples of crypto currencies themselves.

**What is Crypto Currency**

Crypto Currency refers to “digital or virtual currency that is secured by cryptography” (Frankenfield, 2021). In other terms crypto currency in online money like you would use in a game to exchange for certain items that you wanted, however, it is used by millions across the world for both retail exchanges and investing.

Who started crypto currency?

Bitcoin; the world’s first, and most expensive, crypto currency was created by the group or person known as “Satoshi Nakamoto” for the purpose of creating “the world’s first genuine peer-to-peer and decentralized monetary system” (Redman, 2017). Very little is known about Nakamoto seeing as the name itself is a pseudonym. Nakamoto’s last communication with the public was in 2011. The first time the pseudonym was introduced was in 2008 when they released the paper introducing bitcoin titled “Bitcoin: A Peer-to-Peer Electronic Cash System.” Nakamoto has roughly 980,000 Bitcoin, which is valued at roughly $68.2 billion dollars in today’s currency.

What is Crypto currency?

The concept of crypto currency being unregulated by any central authority is relevant in most articles speaking about crypto currency. This concept is one of the defining factors that makes a currency a crypto currency. Along with other factors such as the use of Blockchain, a digital ledger that runs across many computers, and cryptography, which is a method used to secure currencies. Blockchain acts as a way to verify and ensure the integrity of transactions by keeping track of every token of a certain currency and who the current owner of that token is.

**Examples of vendors**

The steps it takes to obtain different crypto currencies may vary depending on the country's regulations and rules regarding crypto currencies. Some websites may not be offered to you if you are from a certain country or geographical location; for example, Binance a crypto currency exchange is banned in Ontario but is open to use for the rest of Canada (Chase, 2021). In order to buy a desired crypto currency, it is a necessity that you go through an exchange. This can take on many forms, whether it be through physical crypto currency vending machines where they will take cash or card and give you crypto currency back, or other avenues for instance going through online exchanges such as coinbase, Binance, Kraken. Alternatively, you can go through a Crypto wallet which may be a piece of hardware or software (Mangur, 2018). There are hundreds of exchanges available however many are not trustworthy and need to be avoided, it's best to use the mainstream exchanges for safety.

**What are crypto currencies used for**

Medium of Exchange:

Crypto currencies have gone through various stages in their lifetime starting out many decades ago as digital cash. Digital cash was first introduced in 1983 and was later revitalized in the mid 90’s to what we now know as crypto currencies (TokenMeister, 2020). From the start crypto currencies were designed with security as a primary concern, that being the users remain anonymous and the currency untraceable. Crypto currencies have only recently become a hot commodity within the last 10 years. Crypto currencies have allowed for seamless transactions between individuals and between individuals and companies.

Payment:

Companies have started utilizing this new technology by accepting crypto currencies as a form of electronic payments and some are slowly adapting crypto currencies as a companies personal currency. To make a payment the user needs to set up a crypto wallet. If the user is wanting to use crypto for day to day items it would be a wise idea to download a trusted crypto wallet onto a mobile device.

Investing purposes:

Crypto currencies have sparked a new wave of investing. You can invest in Crypto currencies to anticipate a rise in value and in turn earn a profit. This is the same premise as buying foreign dollars before that country has an economic upturn or buying a company's common stock. Another means of investing with crypto currencies while still not fully polished are crypto backed bonds. El Salvador has become the first government to pursue such an investment and will surely not be the last (Euronews & Reuters, 2021). As this new type of investment becomes more ubiquitous in the financial world it will become a viable investment strategy.

Dark Web:

While most uses of crypto currencies lay within the legal realm there are outliers. For instance the dark web, a place primarily used to sell illicit substances and services; such as firearms, drugs, stolen credit cards, organs, hitmen, etc. The sale of these illegal, non government sanctioned goods and services made roughly half of bitcoins transactions in the years around 2013 (CryptoCompare, 2015). Crypto currencies play a vital role in the operation of the dark web as they are a medium of exchange for illicit goods. Without bitcoin and its ability to hide the identity of its users the dark web wouldn’t be even close to its success. As there would be little to no security and In turn the Silk Road and other sites similar to it would have ceased to have existed.

**Examples of companies/countries that use the particular technology.**

While the idea of cryptocurrencies have been around for decades they have only been taken seriously by companies within the last 10 years. One of the first companies to start using cryptocurrencies as a form of a payment was Dell (GenesisMining, n.d.). Dell became one of the largest companies to accept Bitcoin worldwide as of 2014. The company chose to go this route to save on transactional fees as to maximize their profits and to keep expenses to a minimum (GenesisMining, n.d.). These fees are much lower than the conventional debit and credit card fees that companies have to pay.

Another company that began to use Bitcoin as an acceptable payment option was airBaltic. An airline company that originated from Latvia and provides flights all over Europe (WorldTodayNews, 2021). AirBaltic first began to accept Bitcoin in 2014 and was the first airline to accept crypto payments. As of 2021 Airbaltic has expanded their horizon and are now accepting a wide variety of crypto currencies. This now includes Bitcoin cash, Ethereum, and DogeCoin as valid methods of payment (WorldTodayNews, 2021).

While many companies have started adopting these decentralized means of currency, they are not the only institutions to do so. Governments have started to incorporate and accept crypto currencies. As of June 9th, 2021 El Salvador has recognized Bitcoin as legal tender, this means that Bitcoin has the capability to be used for tax payments, legal fees, and more (Reiff, 2021). According to Euro news El Salvador has also recently decided to build Bitcoin City, this being a city where its initial funding was from Bitcoin backed bonds valued at $1 billion (Euronews & Reuters, 2021).

**Examples of Currencies**

List of Popular Crypto Currencies:

* Bitcoin (BTC)
* Ethereum (ETH)
* Litecoin (LTC)
* Cardano (ADA)
* Polkadot (DOT)
* Bitcoin Cash (BCH)
* Stellar (XLM)
* Chainlink.
* DogeCoin (DOGE)

When you hear the words crypto currencies you most likely think of Bitcoin as it is the largest crypto currency in the world. Bitcoin was created in 2008 by Satoshi Nakamoto (an unknown group/individual) with the goal of allowing people to make transactions without bank or government involvement (Reiff, 2021). On November 10th, 2021 Bitcoin reached a value of $84,200 CAD per one Bitcoin; however, bitcoin has not always been this “giant” in the crypto world. In fact Bitcoin has risen approximately 9,000,000% between the years 2010 and 2020 (CoinDesk, 2021). While Bitcoin may be the current largest crypto currency it is most definitely not the only viable one in existence.

Ethereum is an alternative crypto currency and is the second most popular and used crypto currency on the market. Ethereum was just an idea in 2013 and finally came to fruition on July 30th, 2015 (Cyptonew, n.d.). It was co-founded by a Russian-Canadian programmer by the name of Vitalik Buterin who was only 19 when he started working on Ethereum. What sets Ethereum apart from Bitcoin is that the currency (Ether) is programmable (Ethereum, 2021). Meaning it has various uses in financial services, games, apps, and other fields.

While Bitcoin and Ethereum are trusted mainstream currencies, many people have fallen subject to scams. Within the past couple years there has been a plague within the crypto market. It has been filled with pump and dump scams feeding on the feeble minded. With the list being hundreds if not thousands of fake coins. They can be seen in alphabetical order on the site [Crypto Scam List: 2021 Update - Scam News Channel](https://scamnewschannel.com/updated-crypto-scam-list-2020/#:~:text=Cryptocurrency%20Scam%20List%20%E2%80%93%20Alphabetically%20Ordered.%201%20GainCryptoLimited,gemforex%20%E3%83%8E%E3%83%BC%E3%82%B9%E3%83%97%E3%83%AC%E3%83%83%E3%83%89%20gemforex%20%E3%82%B9%E3%83%97%E3%83%AC%E3%83%83%E3%83%89.%2010%20Geneiscrypotminer%20Genesiscryptominer.com.%20) . These scams put crypto currencies in a bad light and may feed into the skepticism of crypto. That being said, it is of paramount importance that people do their due diligence before putting their money into anything.

**Advantages and Disadvantages**

Advantages:

Through its use of both blockchain and cryptography, cryptocurrency has a major advantage of being an incredibly secure way of exchanging money. This security allows crypto to also utilize the advantage of not needing a trusted third party, therefore making it easier to transfer funds between 2 parties. By removing the third party the two original parties are able to save money that would have been used for processing or transaction fees should they have used the secure third party. Another advantage for crypto is that they typically aren’t run by a centralized organization making it difficult for governments and companies to interfere with the exchange of money. Cryptocurrencies also allow for a way to protect yourself from inflation, for example, Bitcoin has a set amount of 21 million, so as more and more bitcoin is mined and the demand for it increases, the price of those bitcoin will subsequently rise making it so that in the long term it’s value will rise at a similar or more rapid rate than inflation.

Disadvantages:

Although cryptocurrency boasts many advantages, it also comes along with multiple disadvantages. The most prominent of which is the possibility of scams. Due to the fact that many cryptocurrencies are not managed by one central organization it makes it incredibly difficult to get back any coins you may have sent to the wrong person. This also applies if someone were to set up a scam in which you pay for a good or service with coins when in reality there is no good or service that you will actually receive. Another disadvantage of cryptocurrencies is that even though they are decentralized they are still controlled by their creators. For example, as stated earlier in the report the creator of bitcoin owns roughly 980,000 bitcoin which gives them the ability to possibly sell a majority of those coins and tank the price of bitcoin. Lastly, some cryptocurrencies present environmental disadvantages. For example, Bitcoin can be mined by using computers to solve math equations, however, the computers needed for these calculations take large amounts of power to run, both for the computers themselves and the attached cost to power the fans needed to keep them in an operating temperature. If these mining rigs are run in countries that use fossil fuels as the main source of their power production then these rigs are increasing their carbon footprint exponentially.

**Future Possibilities**

When talking about crypto, people are often most curious about what its uses could be in the future. There are many people that would tell you “Crypto is going to take over the world and traditional banks will go away”. The reality is, we’re not quite there yet and realistically, may never get there. One of the main reasons for that as of right now is the volatility of crypto. Cryptos can easily be swayed by memes, tweets or even individuals like Elon Musk. Let's look at DogeCoin for example, a coin initially started by a software engineer as a joke, Doge entered the crypto market at a price of around three one thousandths of a cent, basically deeming it useless. Until Elon Musk discovered it and made a tweet claiming to be the “Doge Father” and that Doge coin was the “the peoples coin”. This exposure for Doge gave it around 150,000% increase in price, setting it to a high of .50 cents, Making it one of the top 10 largest cryptos on the web. Obviously this is a huge problem for cryptos, one man should not have the power to decide millions of dollars for individuals, by only making one simple tweet. This is something we would never see with the banks. This introduces extreme volatility that would be very dangerous for the consumer, as well as the country, as countries' financial activities strive for financial stability.

Volatility aside, crypto presents one of the largest opportunities for this current generation, and gives us possible hope. It is no secret there is a collective hopelessness arising in the middle class. What was once a great opportunity for our parents, and those who came before them, has become an essential pipe dream for us. The typical home buyer is nearly twice as old as they were in the 1980’s. Rental prices are rapidly increasing and the cost of education is around 10x the price that our parents paid. The cost of living is becoming unachievable. Although the use of Cryptos was never supposed to be bought primarily as an investment, crypto could be our generation's way of amassing enough wealth to sufficiently live in today's world. Likewise to the way housing has done for our parents, considering the vancouver housing market has gone up 300% in the last two decades. Using Bitcoin, for example, has gone up almost 10,000% making people who do use it primarily as an investment a huge amount of money they would otherwise not have been able to. Crypto, specifically Etherium, has also introduced NFT’S, NFT’S are non fungible tokens protected by the Ethereum block chain. These NFT’s can consist of many different things from music to cards, but most commonly used digital art. They are said to be the possible future of art, as owning them is as safe as owning any regular piece of art created by hand, and today's age of technology creates an equal, if not higher demand. For example, in October, an NFT named “crypto punk” , a pixelated picture of a man, sold for 550 million dollars.

Unfortunately for us, the future of crypto is not all candy and lollipops. Many governments are fearful of what the future of crypto may hold as they are not able to regulate it. This is why notable countries like China and Russia have banned crypto until they can further regulate and manage it. On the other hand, we have countries that are fully embarrassed about crypto. El Salvador, for example, is the first nation that has made crypto a legal tender in their country. This is in hopes to make it easier for Salvadorians to send money to loved ones when out of the country, but also for financial inclusion, investment, tourism and developments. Governments will play a huge part in the future as crypto, if developed countries decide they don't want to use to crypto as a future currency, all cryptos would basically be deemed useless, and the 2 trillion dollars that they are said to be worth will go down inevitably go down to zero.

What it means for businesses

Some of the biggest businesses around the world have begun to incorporate certain cryptos as a form of payment. Tesla will allow the purchases of their vehicles with bitcoin, they also purchased bitcoin as their own personal investment, which isn’t a huge surprise considering Elon Musk is one of the biggest advocates for cryptos.. Visa and Mastercard are both also beginning to incorporate crypto; Visa is now allowing transactions to be made with stablecoins, which is part of the ethereum block chain, and MasterCard is going to join them in 2022. Crypto could make many aspects of business much simpler in the future. One way it could do so is a simpler method for international companies to make their global payments.. Instead of having to convert their dollar into dozens of different international currencies, they could simply use a crypto, making it easier, as well as cutting out banks which eliminates the middleman and makes the transactions costless; a win for employers and employees. The same could also be said for crowdfunding, as websites like GoFundMe make money by taking a certain % of each donation received. It would also be just as transparent for the people donating as crypto wallets also let the donors see how much donations have come in.

**Conclusion**

CryptoCurrency is one of the biggest phenomenons of our generation. Throughout this report, we have described what crypto is, given a brief history, a few of the most important types of currencies, some advantages and disadvantages of crypto and what the future may hold. There are still many questions that have not been answered around the topic of these currencies, and it will be very interesting to see in what ways we will really use these currencies and what direction they may lead to in the future.

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Presentation:

10 mins long 10 slides (1 minute per slide)