CAT 4 RESOURCE DEVELOPMENT

Group 4-100

ANALYSIS OF CRYPTOCURRENCIES

Kee Jia Sheng 4P1

Ng Zheng Long 4P1

Ethan Tan 4P1

Jet Lim 4P2

ABSTRACT

Given the rise of cryptocurrencies and the newfound technology of blockchain technology, our group aims to ease Secondary 1-4 students into the future, by creating a website that aims to teach them about cryptocurrencies and blockchains, and how they might affect our lives in the future. We do so by creating 3 different levels of the resource package, where students can access the Beginner, Intermediate, and Advanced package. It houses home-made and sourced infographics that educate the students on different parts and levels of blockchains and cryptocurrencies. It also includes real-time tracking of cryptocurrencies to demonstrate its volatility and spark their interests in the subject. In addition, there are recommended videos that gives a detailed description of the subject the student is perusing.

1   INTRODUCTION

1.1   Rationale

Our group leader had his interest sparked by the promise of Bitcoin to generate huge and fast returns, after researching, he found that cryptocurrencies and blockchains were much more interesting than just a quick buck, and sought our group members' help to educate and inspire the Sec 1-4 student population about the magic and innovation that is blockchain technology and bitcoin.

1.2   Objectives

The objectives of Analysis of cryptocurrencies is to:

-Teach students about blockchain technologies

-provide students with a basic understanding of blockchains and cryptocurrencies.

-Teach students about the multibillion dollar cryptocurrency market

-Help students understand the factors that lead to the volatility of the cryptocurrency market

1.3   Target Audience

The Secondary 1-4 population

1.4   Resources

The Resources created for this project are the website comprising the Beginner, Intermediate and Advanced Resource Packages to teach students about cryptocurrencies, aided by infographics and videos.

PURPOSES OF ALT COINS

Alt-coins have a plethora of different functions, and here are some basic facts about them!

ULTRA PRIVATE AND SECURE?

Monero is exactly the type of coin you would be after! Monero functions such that transactions made with it are not visible to the public ; you need a private view key! This however, has resulted in Monero being used for dark web and drug related transactions.
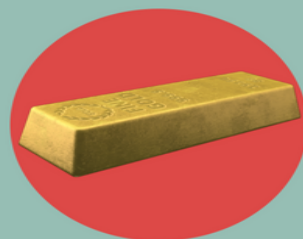
CAN BE TRADED ON EXCHANGES

These alt coins can be traded on multiple different exchanges! However, due to constant major price fluctuations, this has made it into a high risk high returns kind of asset.

ARE VYING TO BE MASS ADOPTED

These alt coins are all trying to be the currency of the future for something ; be it transactions, smart contracts or simp[y as a digital store of value.

MINING CRYPTOCURRENCY

NO CENTRAL AUTHORITY OR BANK

TO PREVENT DEVALUATION OF CRYPTOCURRENCIES, MINING IS MADE HARDER BY MAKING MINERS SOLVE COMPLICATED MATHEMATICAL PUZZLES CALLED "PROOF OF WORK"

DIFFICULTY OF THE MATHEMATICAL PUZZLES INCREASES AS MORE PEOPLE MINE

DIFFICULTY

IS BITCOIN THE KING OF CRYPTOCURRENCY

STATISTICS

Occupies about 115 billion USD out of the total market cap

Bitcoin occupie a larger percentage market cap during more troubled times in the marketspace
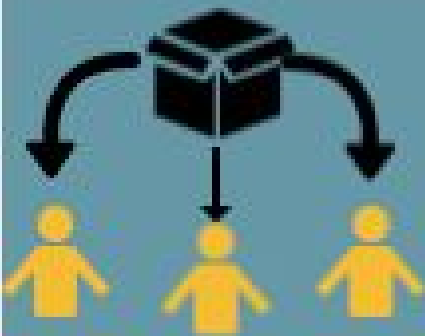
Some alt-coins are paired up against bitcoin in exchanges

Bitcoin
42%

Others
58%

2   REVIEW

The resources about cryptocurrencies and blockchain technologies online are unorganised, not tailored for students and may be unreliable, it is hence hard for students to learn about cryptocurrencies and blockchain technologies, we thus made a organised, easy to access, interesting and reliable website tailored to students.
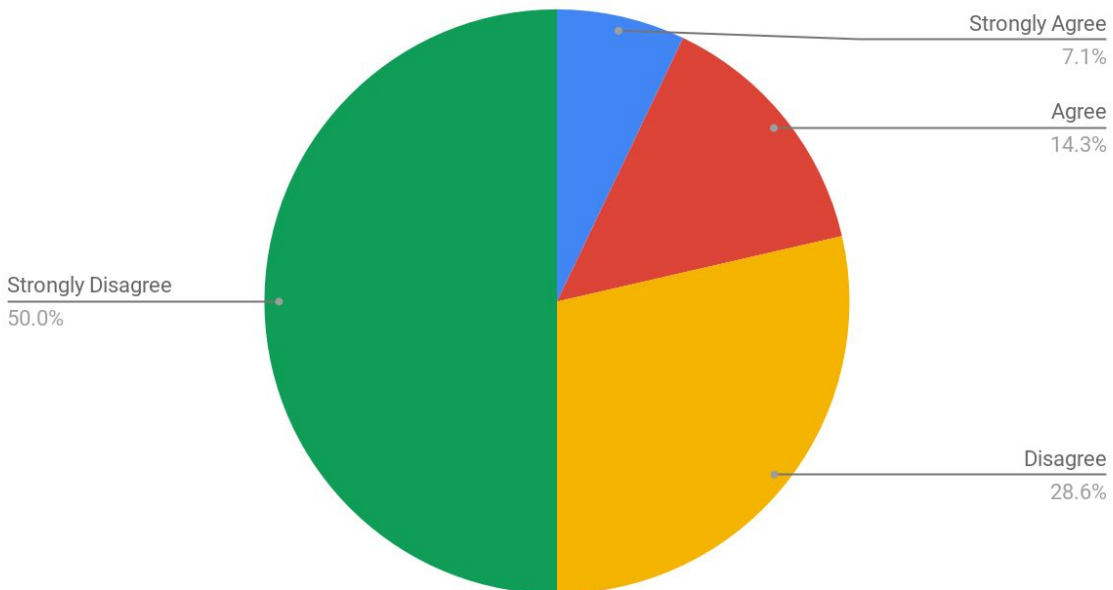
3 METHODOLOGY

3.1 Needs Analysis

We have conducted a needs analysis to ascertain the relevance of our project. A survey was constructed to better understand the respondents' opinions on our project. We asked them about their understanding as well as to rate the importance of cryptocurrencies in our society. We had 125 respondents, and from the results we can see that many do not understand much on cryptocurrencies and also find it important. Most of them also showed interest in learning more on cryptocurrencies through a website, which was our final product.
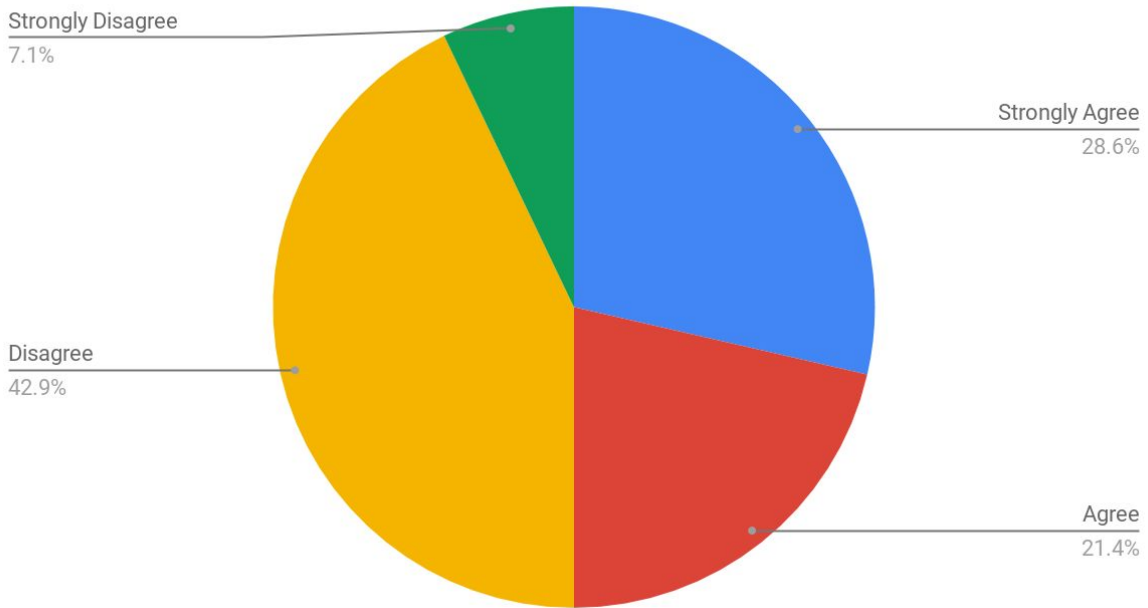
3.2 Survey Results
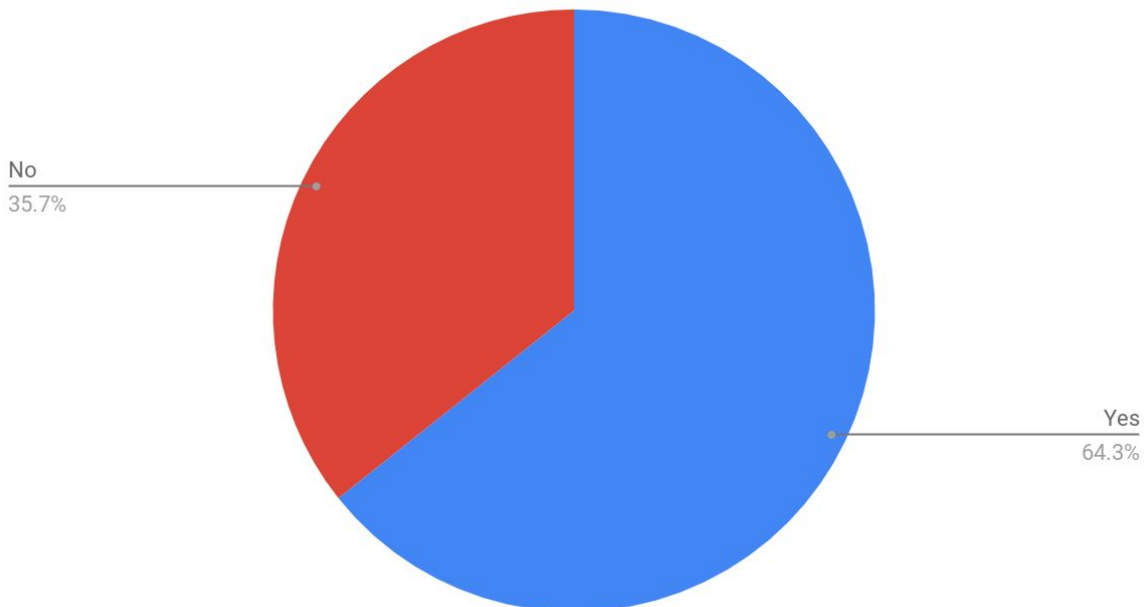
Do you understand much on cryptocurrencies?

Strongly Agree 7.1%
Agree 14.3%
Disagree 28.6%
Strongly Disagree 50.0%

Are cryptocurrencies important?

Strongly Disagree
7.1%

Strongly Agree
28.6%

Disagree
42.9%

Agree
21.4%

Interest in learning through a website

No
35.7%

Yes
64.3%

3.3   Development of Resources

We took great care in visiting sites, thus confirming and gaining knowledge and information about cryptocurrencies and blockchain technologies to input into our website. The difficulty assessment was done in our pilot test by asking family members and our mentor about what they thought was easy and difficult, and hence

assigning them differing levels of difficulty. We then expanded on these ideas by researching about them again, and making infographics and sourcing videos to input in the website. We lastly put in a cryptocurrency price tracker to help ignite a spark in the student's interests when they see how much the cryptocurrencies are worth, and hence how much of an impact they could have in our lives.

3.4   Pilot Test

A pilot test was administered to 80 students ranging from the age of 15-16. A product demo was conducted, where the website would be shown, and participants were asked afterwards for their opinion of the website resource package. Feedback and suggestions from the surveys were then later on implemented into the website to make it more user friendly and appealing to readers. General feedback received was that they found the resource package very useful as an introduction to cryptocurrencies, while for people who had already heard of cryptocurrencies it served to further their knowledge and give them a good insight into the further purposes and inner workings of cryptocurrencies.

This website is useful as it helps collate and simplify information on cryptocurrencies for ease of usage – Puah Rui Jie 4P1
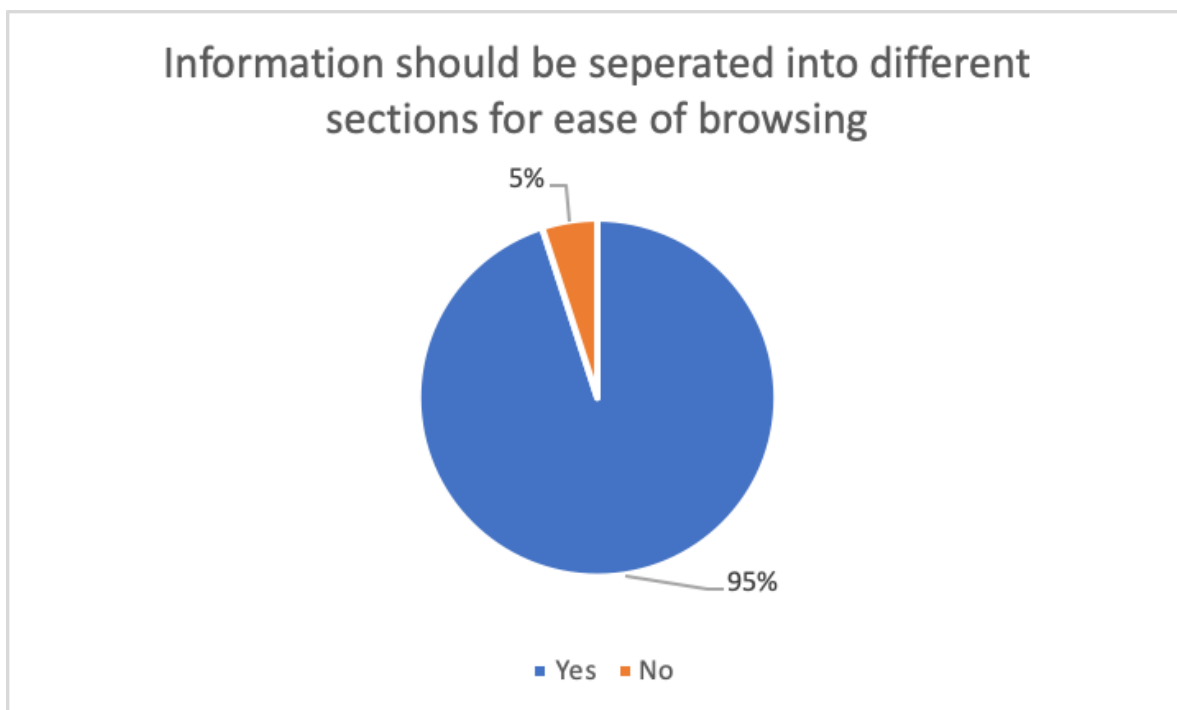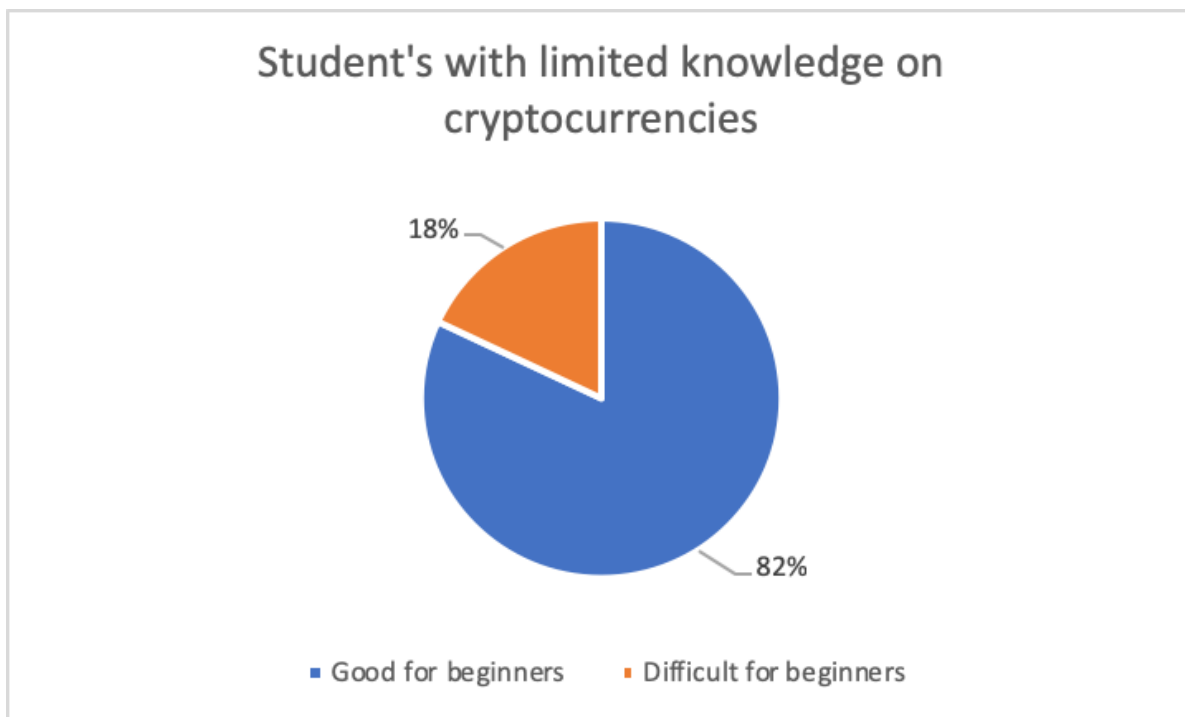
I feel that although the website has a plethora of information, maybe key terms could be bolded out to highlight them and make it simpler to read – Ong Yi Jie 402

Information could be presented in a more attractive way, making it more visually appealing to read – Tng Tze Yang 3P1

This website does stand out from other online resources thanks to its simple design- Chew Shawn Wei 3S2

I think that the website is really nicely designed, and the information is presented in a clear and concise manner that facilitates learning. Maybe more in depth information or more videos could be incorporated to make it even better? – Zhang Yuan 4P1

We also collated some simple feedback to help us improve upon our website, mainly on if the information given would be suitable to beginners to help us decide upon the relevancy of our information.

Student's with limited knowledge on cryptocurrencies

18%

82%

■ Good for beginners   ■ Difficult for beginners

Information should be seperated into different sections for ease of browsing

5%

95%

■ Yes   ■ No

Based from the above feedback, we decided to separate the information in the website into 3 different sections: mainly beginner, intermediate and advanced. We also revised the type of information we provided, mainly to try and tailor the beginner section more to the needs of students who were new to cryptocurrencies or had a limited area of expertise in them.

4   OUTCOME AND DISCUSSION

Although we did our pilot test late as there was a lot of information to condense into a simple and attractive website, it turned to be worth it as there was a lot of positive feedback regarding the site, and we took a suggestion of adding a real time price tracker for increased interest in the subject, alongside more infographics and videos that appeal to the young student population, instead of walls of text.

5   CONCLUSION

Despite initially facing setbacks such as a lack of knowledge about cryptocurrencies and blockchain technologies, through vast and extensive research, we built up a reserve of knowledge to share in an easy to read manner, to save the students the torture of reading everything about it like we did. Perseverance and the ability to receive feedback and improve on it were key to our success, alongside the ability to work together well and assign each other what to do based on our strengths. In the end, we discovered what we were good at and how to work well despite our differences, and finished a wonderful project that will help students now and in the future.

6   REFERENCES

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