

## Explore – Impact of Computing Innovations

### Written Response Submission Template

Please see [Assessment Overview and Performance Task Directions for Student](#) for the task directions and recommended word counts.

#### Computational Artifact

2a)

The computing innovation that is represented by my computational artifact is online brokers.

Online brokers allow people to make stocks, real estate, or other exchanges through the internet [2]. They allow this process to be easier and more comfortable so that common people can find it viable to trade and that their response time to market changes can be minimalized [2].

My computational artifact describes what online brokers are as well as its purpose and effect of essentially making trading much easier for the common person due to an almost complete absence of location requirements.

2b)

I used the internet and the search engine Google to find resources for information about online brokers. From here, I used Google Docs to draft a short speech and then used the Voice Memo application on my iPhone to record the audio. I then shared the audio file directly from the phone to my email using the built-in sharing framework in the Voice Memo application and I shared it to my laptop by emailing the file to myself. I then finally used the Audio Converter by 123APPS to convert the .m4a file to a .mp3 file.

## Computing Innovation

2c)

One beneficial effect that online brokers have on society and economy is that they allow people to easily and quickly trade stocks, real estate, and other investments [3]. This allows people who may be knowledgeable fields to execute their potential to the fullest by not having the limitations of physical trading (particularly with stocks). It also helps the economy by allowing people to economically trade at any scale and at any time to allow for the maximum money flow possible [2]. In addition, the shortened response times that online brokers help the economy by permitting investors or potential buyers to quickly react to market changes.

One harmful aspect that online brokers have on society is that they often allow people who may not have a great knowledge about investing to make large mistakes in trading, which may cause them to lose much of their possessions and eventually become entrenched in debt, often forcing them to claim bankruptcy [2]. This not only harms the individual but can also harm the economy. Without online brokers, the difficulty in trading would mean that only experienced traders would actually put the effort into trading [3]. This would prevent misguided people from getting themselves hurt through trading.

2d)

The data that online brokers store are mostly in the form of text, or more specifically, strings and floating-point values. This would include the names of corporations as well as the prices of their stocks and previous prices [4]. It would be similar with real estate brokers; however, they typically also include pictures of the properties. Online brokers use exchange prices that are set by either the seller, market value, or different stock exchanges in order to depict visualizations of cost trend as well as other ratios or numerical values (the output) that would help investors make their decisions regarding their money [4]. In addition, some online brokers have algorithms that offer predictions regarding prices in order to further help potential buyers and sellers [4].

One data privacy concern is that if real estate brokers are hacked, then the hackers would have access to information that could tell them the owners of different properties as well as how they treat these properties (primary residences, flips, rentals, etc.) [1]. This would be a large security concern because it could put buyers at risk of physical theft, property damage, or other crimes or violations. In addition, if people can hack into personal accounts on these online brokers, then they could potentially be able to steal incredibly large amounts of money [1]. This would thus cause damage to the broker and the insurance companies and banks affiliated with the broker [1]. At a large scale, this could cause massive devastation to the economy.

## References

2e)

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- [2] Nordqvist, Christian. "What Is an Online Broker?" Market Business News, Market Business News, 28 July 2018, [marketbusinessnews.com/financial-glossary/online-broker-definition-meaning/](http://marketbusinessnews.com/financial-glossary/online-broker-definition-meaning/).
- [3] Rexaline, Shanthi. "What Is An Online Broker?". Benzinga, 26 March 2020, <https://www.benzinga.com/money/what-is-an-online-broker/>.
- [4] Boyte-White, Claire. "How To Choose An Online Stock Broker". Investopedia, 8 Oct. 2019, <https://www.investopedia.com/investing/complete-guide-choosing-online-stock-broker/>.