Chapter 5
Buy/Hold/Trade or Sell/Divest/Disengage:
Using Executive Functions in Electronic Hive Minds for Decision Making Around Cryptocurrencies

ABSTRACT
An electronic hive mind (EHM) can be a distributed virtual community and a mental space for information-gathering, analysis, and ultimately, decision making; it can play the role of executive functioning (in the same way a frontal lobe does for a human brain) and inform real-world actions. To see how this might function, the EHM around cryptocurrencies was explored from multiple social media platforms. This topic addresses an issue that is not fully defined and is of broad-scale mainstream interests. Cryptocurrencies may be everything from virtual ephemera and hot promises to a life-changing innovation. As a phenomenon, it has instantiated in different ways around the world, with cryptocurrency “farming” centers, nation-state-issued cryptocurrencies, government efforts at regulating such exchanges, and volatile gains and losses for cryptocurrency speculators and investors. How people engage with cryptocurrencies can affect their real-world net worth as well as other aspects of their lives, so this is not merely a theoretical issue but one with real-world impacts. This work explores three hypotheses around social messaging, the general membership of the target electronic hive mind, and mass virtual executive functioning and discovers a mind hyped on seductive promise.

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INTRODUCTION

People use their mental processes to understand the world, pay attention to what is relevant, problem-solve, and act, to engage effectively within it. This engagement requires intelligence and strategy, and it requires self-control. Collectively, groups may be thought of as having some leadership and applied rules and bureaucratic structures that enable people to collaborate and cooperate. A core question in this chapter is whether an electronic hive mind, defined as “a sentient and potent mass entity with potential for various types of concentrated mass action as well as dispersed smaller-unit actions, among others” (Hai-Jew, 2019, p. 210). The thinking is that socio-technological connectivity enables people to share ideas and enable particular temporal mind-melds and understandings around topics of shared interest, which may lead to in-world actions. More specifically, this work explores precursors to action—based around cognitive executive functions (such as information gathering, sense making, and planning). These functions are considered analogous to some of the capabilities in the human mind’s frontal lobe and its application for learning, decision making, and action taking. The frontal lobe is also critical in applying “theory of mind,” or understanding others’ thinking and anticipating others’ actions (Stone, Baron-Cohen, & Knight, 1998).

A general assumption is that people may engage the world in a learning way: they gather information, ask family and friends, make decisions (rationally and irrationally, emotionally and unemotionally), test their decision making in the world, gather more data, and repeat.

Analogically, the electronic hive mind (EHM) involves information processing and some decision making. An earlier work showed the importance of having (informed and benevolent) experts in the EHM space to inform the larger publics of complex issues, like cybersecurity (Hai-Jew, 2019). This work explores what the executive function of an EHM may look like:

- What does executive functioning look like an in EHM? What are reliable indicators of the executive functioning? What does executive functioning look like when it is centralized or decentralized?
- How is collective virtual working memory maintained, with certain issues kept top-of-mind? (Through memes? Through stories? Through repetition? Through symbolism?) How is selective history kept alive? How is group identity affirmed?
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