Haley Siebert CS410: Explorations in Data Science Summer 2020 10 July 2020

"Blocking the Grid" Project Plan

The main focus of this paper will be assessing the ethical implications of blockchain applications in the world of peer to peer energy trading. Due to the inherently speculative nature of the peer to peer energy trading, there is not a single unified vision for how an implementation of such a marketplace would work, but there are similarities across these theories as to how blockchain would be implemented within them, and as such, the ethical implications therein. There are pros and cons, and I intend to fully discuss both sides of this argument.

I plan to collect a variety of sources and digest them into my own perspective. I have thus far been unable to find papers on my topic in specific, but there are many on specific aspects of this idea, so I will read these papers and form my own argument. Thus far, I have collected sources relating to the racial implications of blockchain as a broad issue, comparative reviews of various case studies in the peer to peer energy trading sphere, as well as individual case studies that use blockchain-backed approaches. By reading all these papers and synthesizing their takeaway points, I plan to formulate my own review of the blockchain approach in peer to peer energy trading as it relates to ethical implications. I will also be making use of Energy.gov's LEAD tool to help illustrate issues in access to green energy for lower-income communities and build graphics. I will be doing this paper on my own, so while there is not any need for a discussion of project roles, my milestones will be more granular to motivate better time management.

Milestones:

- 1. Collect sources: search peer-viewed sources to make the backbone of research. Articles can be collected and used throughout the research as needed.
- 2. "Annotated Bibliography": read through all the papers and write up summaries of their main headers, making notes as needed. This will help to stay organized as the project goes forward. Discard/replace sources as needed at this step.
- 3. Form paper outline: create a general outline of the main arguments/discussions that will be my paper. Be mindful of where points can be expanded on for the 9 page final.
 - a. Where possible, try to expand on previously-established points for the 9 page final. New "points" should only be added as relevant asides to broader topics.
- 4. Add body elements: add relevant quotes from sources to the skeleton. Generate/collect relevant graphics and add to the skeleton.
- 5. 4 page-rough draft: write up and get a rough version of the paper.
- 6. 4 page-edits: edit and reform draft until it is in its final state.
- 7. 9 page expansion: repeat 1-6 as needed to create the 9 page final.