Response #1: *In Support of Rob Kitchin*

In Rob Kitchin’s analytical response to Chris Anderson’s article, “The end of theory,” he rebuts the empiricist argument for the self-supporting application of big data. Science, Kitchin notes, is inherently organized into unique paradigms, the fourth of which can be defined as the future of big data. Disregarding the natural pathways of experimentalist thought, theoretical modelling, computation, and exploration that have allowed for the incorporation and explosion of big data within modern society undermines the power that this field of science offers in the context of human development. With the creation of advanced analytical tools, the shift from man- to data-borne theory and, by extension, the presentation of statistical evidence may seem natural. However, Kitchin clearly believes that the inclusion of social sciences and a humanitarian mindset is essential to shaping the future of big data as it affects people, lest the niche attributes of localized culture, personal bias, and ultimately, human nature are to be overlooked in a new era of “data-driven” science.

Relying on data alone for the breakdown of qualitative factors could spell disaster for under-researched topics, especially those that fall under the umbrella of human development issues. It is already far too common for “hot” research papers, analyses, and attractive techniques to overtake genuinely novel and insightfully conducted studies in the public eye. Placing stock in only what is generated by algorithms will only further the divide between issues that are popular or data-rich and issues that are necessary. Instead of moving towards the post-positivist approach presented by Chris Anderson, Kitchin asserts that there is still quite a lot of potential to be found in the theory-based exploration of existing problems, utilizing data-driven tools to support the critical review of underrepresented populations, problems, and data to create a better understanding of reality.

Response #2: *In Support of Chris Anderson*

Opposing Kitchin’s beliefs in the transformative abilities of man-borne research lies the cool, composed rhetoric of Chris Anderson, who, in his article “The end of theory,” presents an enticing image of the future of big data in a world detached from bias. Rather than arguing against a certain aspect of positivist epistemology or the inherent flaws of big data tools, Anderson presents the simple truths of our modern world – truths that demonstrate that with the presence of advanced algorithms, massive data pools generated by society’s addiction to smart devices, and high-functioning tools able to compress and organize statistics on a scale heretofore thought impossible, “correlation is enough,” causation is irrelevant, and the scientific method has grown inherently obsolete.

Unlike in previous decades, new developments in the realm of big data have allowed for the capturing of expansive, high-quality representations of reality. As in the case of Amazon’s purchasing recommendation algorithm, systems based on outputs alone can now generate more accurate and precise analyses of data patterns without knowledge of reason. Massive, online-ordering corporations no longer need to know *why* people buy what they do; they need only know *what* they buy, and leave the divination of future trends to algorithms with near-perfect rates of prediction. While analyses like those of Amazon’s computerized recommendation system may seem overwhelmingly applicable to the realm of economics, the data-based epistemology of the present can produce similar results to create increasingly human-focused, data-rich studies of societies. Switch out the input of purchasing patterns with rates of domestic abuse in an underdeveloped area with lacking datasets, and socially-minded researchers have a massive advantage in the process of categorizing threats to community development and flourishing.