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Mrs. Secord

ISM 1

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Research Assessment #16

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Subject: Guide to Solving Social Problems with Machine Learning

MLA citation(s):

Kleinberg, Jon, et al. "A Guide to Solving Social Problems with Machine Learning." *Harvard Business Review*, Harvard Business Review, 22 Feb. 2017,
<https://hbr.org/2016/12/a-guide-to-solving-social-problems-with-machine-learning>.

Assessment:

In this semester, I am currently in the process of selecting a mentor and exploring final product ideas in order to create a successful machine learning project in ISM. Hence, I was trying to focus on finding out how I can address social problems with my knowledge of machine learning. I was hoping to find out more about the thought process that should go behind developing solutions for social problems, finding ideas for specific social problems that I can target to solve, and what some examples are of machine learning solutions in the social sector. To earn this new knowledge about final product ideas, I found the article, "A Guide to Solving Social Problems with Machine Learning," which went over a specific example of a solution to the social problem of helping make decisions for court cases and the aspects that I will need to consider to create my own machine learning solution.

After understanding the thought process for creating solutions for social problems through this article, I was able to understand the complexities that play out in these predictions, primarily due to the ethics in mankind decisions that are likely to determine lives. I learned a specific example regarding a solution to the social problem of deciding over court cases and whether the accused should stay in jail or stay at home till the next proceeding. This process usually takes the consideration of many factors: Will the accused return on their next date? Will they commit more crimes in the future? How will their lives be changed? (Kleinberg, et al). This is an extremely important decision to make and based on past data, there could be a much smaller population in jails and lower crime rates due to better predictions. However, in terms of serious or violent crimes, there must be regulations and human intervention for creating critical decisions. This example was very helpful for me to learn about as it helped me significantly on what factors I will need to consider if I aim to solve a social problem such as bias towards certain data to an abundance of a specific trend in my data. Moreover, I now have a few ideas on what I could do to solve problems that occur daily and what things I will need to consider from sufficient data to the possibility of machine learning applications. I think although social problems that are into policy are a great area, I probably will not have sufficient resources or expertise to create an effective solution. Thus, I am planning to go into problems that are much easier to solve on a smaller scale like helping students, creating awareness through conversational chatbots, and some other types of models that could be used in our daily life.

I am currently developing ideas for my final project that is likely to focus on computer vision or natural language processing to solve problems that are relevant to my life and the community I am a part of. I will continue to explore any other ideas that are not just in the social problem sector and will try to survey others including friends, family, and teachers for potential

solutions! I will look at some more examples of projects for inspiration and research some more machine learning problems to determine my final project idea in the future.