Reflection Paper on Articles or Useful Info and Research Found

This paper contains some research that I have found that can be of use and interest for people to read and learn about during a global pandemic. Throughout this paper, there will be a total of three sources that I will be talking about and analyzing, all of which have provided full text along with being peer – reviewed. All of the sources that will be presented before you in this paper were found by using the University of New Mexico’s (UNM) archives and/or a trusted third-party archive that is supported and provided by UNM. For all sources provided within this paper, the references of the source that I used can be found in the articles themselves to you can check them out as well if you are so inclined to review my sources yourself.

I have come to realize that there are many people that are out there, who fear much of what the media puts out, or at the least may seem skeptical of it. This is no way to push forward with a heart filled with fear. Let me assure you that I will only bring you the highest quality research that has been provided by UNM. I am not the one that has conducted this research but instead the one that has collected and has presented it before you in an efficient way (Rather than you having to look for this research and read through it, I have done it for you). Convenience and truth is the key to overcome the fear of misinformation, we are going to take our first step. The 3 sources that I will provide you, can be considered legitimate sources (by both UNM and myself).

The first source is an applied mathematical model to further develop optimized policies to aid us in the battle of COVID – 19. The second one is simply meant to help protect you while quarantined to be sure that your psychologically well – being stable until this pandemic comes to
Finding sources for this paper was very hard because given the time that I started this project I couldn’t find a lot of information on the pandemic. After dedicating a couple of hours of using Academic Search Complete, more and more sources started flowing through their archives. I found a paper written by a bunch of applied mathematicians that shows mathematical models of the world and what we can do as citizens to further fight this pandemic. This paper that I am referring to is titled “Developing Optimal Policies to Fight Pandemics and COVID-19 Combat in the United States” by Eyüp Çetin, Serap Kiremitci, and Baris Kiremitci. Much of the mathematical models that are presented I will not be explaining for a couple of different reasons. Much of the mathematics that is within this paper is beyond my knowledge and are a couple of math courses ahead; because of this I am unable to give an explanation as to why they modeled something a particular way. Regardless of this, we can review their conclusion based off of their model which can summarize what they have done. Before jumping to their conclusion, I want to talk about some of the things within this mathematical model they have made that make it unique. In the abstract of this paper they talk about their protocols used in the mathematical model and the current protocols given to us by the government, stated here “Our personal protection protocol provides 99.99% protection from COVID-19 for an American through personal strategies when the mass protection model supplies 96.961% protection on average from coronavirus pandemic for the United States through countrywide policies.” (Çetin et al., 2020). This is very interesting because they have told us that the methods that the government have been using are pretty effective (if you consider anything above 95% effective), however they are pushing for that additional 2.029% increase in safety. In their mathematical model there
are multiple different factors that they have accounted for which makes me believe that they have picked up most if not all factors that can affect the outcome of this pandemic with respect to the protocols in place. Aside from their mathematical model we don’t need to look at the actual equation, rather look at the variables that compose the model. On page 373 of the article, they make the following assumptions “As a personal point of view, a person can adopt protection and treatment tools from the sets of pharmaceutical and nonpharmaceutical instruments such as vaccine, antiviral medicines, use of hand hygiene products, 50% social distancing and voluntary self-quarantine during a reasonable planning horizon” (Çetin et al., 2020); On top of that on the same page they have presented 11 different notations that are essential when monitoring and predicting the behavior of an outbreak (Çetin et al., 2020). On page 375, more notations can be seen including the accountability of people that are at risk (target segment) to further summarize the article, under section 3.1 on page 377 the authors become more analytical of the factors by accounting for the percentage of particles being blocked from an N95 mask (95%), alcohol content within hand sanitizer, closing of boarders, etc (Çetin et al., 2020). All of this sounds very familiar to our daily life, I think we can all safely say that this model the authors have presented before us isn’t correct, but the most accurate we can get to predicting the future of this pandemic. There is more near the end of the paper with their conclusions, including protection probability of each factor, and the overall cost to put these protocols in place.

Many of us have been trying to do our part of self – quarantining and being sure we flatten the curve. Now something that is essential to all of us is human interaction. Today, we have the amazing technology and innovations that allow human interaction to occur with 0% chance of spreading pathogens. Video and audio calling, along with other programs allow us to interact with the ones that we love and are accessible by everyone with a device. The question is,
can we say that these digital forms of interaction actually help in replacing the benefits of face-to-face interactions? According to the article “Wellbeing and mental health during the COVID-19 outbreak” by Julian Eaton, it is recommended to use these online tools to help cope with stresses, this is seen on the first page of the PDF here: “Most people cope well during stressful times by turning to those around them – their friends, families and communities – for practical and emotional support that supports their resilience: their ability to withstand stress and bounce back from difficult experiences or events” (Eaton, 2020). Furthermore, something else that is recommended is to utilize technology to communicate with loved ones. Overall, this was just one of the three different recommendations within the article itself, these three recommendations are unique depending on the people you would like to connect with most. The second quote that I referred to in this paragraph is “Recommendation 1: Support people in the community” (Eaton, 2020). The other two recommendations are titled “Recommendation 2: Support your patients” and “Recommendation 3: Support other health care workers” (Eaton, 2020). What I have seen from this paper overall is that it uses credible sources to suggest advice in dealing with challenges. If any of these recommendation titles sound interesting or potentially helpful to you, the source and the link to the full PDF is in the Works Cited page. It appears that there is a lot of information here that can be helpful to an individual's wellbeing. I highly suggest that this information in particular be spread to not only the students and faculty of UNM – Valencia but to all that will benefit from it (pretty much anyone).

We’ve been in a pandemic for a while now and the world has been quite silent. Given that there is no treatment or vaccine for the virus, there really isn’t much we can do other than stay home and wait for the development of a treatment or vaccine. The more unprotected human interactions we have, the faster it will spread which also means the possible loss of lives and
longer time in quarantine. This virus is part of history, there is something important about history.

In both middle and high school, I had to take history to continue with my academics, but the question is why? When thinking about the concept of history, it is the study of past events that have impacted the world today. On a line you can place every chronological historical event on an infinite ray, and here we are on that ray. There is a source that I have found that can keep you updated on what we currently know about COVID – 19 and maybe some information that you haven’t heard of. This source is the developmental history of this pandemic that we are currently in. This source being “Covid-19: current knowledge, disease potential, prevention and clinical advances” by Aftab ALAM et al.

In the introduction of this article it talks about how there are 4 different strands of COVID – 19 along with another sister virus known as Severe Acute Respiratory Syndrome (SARS) that has been around since 2012 (Alam et al., 2020). There is a lot more information of COVID – 19 and SARS in this paper including how COVID – 19 works in section 3, “The coronavirus disease (COVID-2019): SARS-CoV-2 virus”; section 4, “4. Clinical manifestation and complication” talks about some of the symptoms of COVID – 19 along with the protocols associated with anyone diagnosed with COVID – 19, and the complications for someone diagnosed (Alam et al., 2020). Section 5 then leads into the transmission from animal to human that is complemented with figure I (within the article) that shows the R0 (R knot, which means the amount of people on average to be infected from one infected individual) of a handful of pathogens including COVID – 19; under figure I (within the article) we can see the handful of pathogens, as mentioned previously, but most importantly we can see that COVID – 19 has a R0 calculated of 2.79 (Alam et al., 2020). Something to note with this R0 value is that with time and
medical enhancements, this value is subject to change. For now, it appears as of the publication date of the source (15 May, 2020), and 2.79 is a close and accurate R0 for the time. However, today or the future may yield a different R0 relative to what happens in the future. If you continue reading through this source you will see more animal to human transmissions, then under section 7 there is a lot of information provided along with several sub – sections titled “Vaccines and antivirals: current status and future directions”; this section primarily focuses on the suggestion of potential or reported treatments associated with drugs that can be taken to help fight COVID – 19 (Alam et al., 2020). The source is then completed with the impact that COVID – 19 has on the global economy along with a discussion and conclusion section. Overall, this source was very solid and beneficial when it comes to getting everyone up to date on COVID – 19.

Six pages later, we have seen how applied mathematicians tackle problems such as a pandemic to determine how well the current protocols are working and if there are any better ones. Amazingly, they were even able to mathematically estimate and prove which protocols are the most effective; at the same time, giving a possible cost in the case that a given policy was administered and enforced. We also began to realize that there was more than one unseen enemy other than COVID – 19 which is the impact of stress due to being quarantined. A brief discussion of what history really is along with how we are living through a historical event right now will be talked about and shared with generations to come. Given that this is history, we had the opportunity to analyze COVID – 19 to keep everyone aware and up to date about the pathogen. As of writing this, we are still is this historical event and even though there are some predictions as to when this pandemic will come to an end, we never truly know until we get there. We need to have faith in our community, hardworking doctors, scientist, and the world, in order to
overcome this. If we all do our part, it can help secure a safe future more quickly. Look, we all know the protocols here, we have been doing it for months and we have been doing well, being sanitary and cautious when in situations with others. If you are reading to this point, you have completed the paper that I have written. I ask that you contact me with your thoughts and suggestions considering the ever-changing climate of COVID – 19. My contact information is at the top of the paper, thank you.
Works Cited

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