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Proposal Argument with Annotated Works Cited: Algorithms and Crimes

Today, society is faced with the issue of violence, terrorism, and other criminal acts such as theft or fraud. To aid in the enforcement of the law and the prevention of crimes or terrorism, government entities have implemented the use of facial recognition algorithms; these facial recognition algorithms, which are simply computer programs, have been used with the expectation of aiding in crime prevention through the identification and early detainment of suspects or perpetrators before they can commit a crime. The implementation and efficacy of facial recognition algorithms in crime prevention have drawn attention from politicians and discussions from mathematicians, researchers, and the media. This is in large part due to the issue of privacy and to the cases of algorithmic misidentification of innocent citizens for criminals which have led to unfortunate arrests. Although these cases are truly unfortunate and the issue of privacy is evident, we cannot ignore that these algorithms have had notable success in helping detain criminals in cities like New York City, where the success to error ratio is large.

Given our circumstances, the implementation of algorithms to aid government entities in crime prevention is less harmful than abstaining from such practice and, thus, the least harmful option.

Historically, society has put laws or rules in place to reduce the prevalence of these criminal acts for the safety, tranquility, and security of society as a whole. This can be seen in our own society where we have dedicated government entities such as municipal police departments that enforce the many regulations passed by local, state, and federal legislative

bodies. Moreover, the efficacy of these government entities is what promotes the safety and tranquility of society. With recent advancements by computer scientists, mathematicians, and researchers, facial recognition algorithms have been implemented by government entities with the purpose of detaining criminal and thus preventing crime. But before continuing, we have to realize that an algorithm is a set of instructions used to accomplish a task. They are often mathematical instructions or operations that can be translated into computer code. With the given task and instructions, a computer analyzes the data that it receives and accomplishes its task (Fry 8). From this process or algorithm, the computer achieves a given goal. The goal for government entities is to prevent crime by detaining criminals and suspects before they have a chance to commit a horrible crime. But government entities can do this after having correctly identified them by using facial algorithms. Although there has been much success, there have also been instances where algorithms have committed errors and thus misidentified an innocent person to be a criminal with similar appearances, which have led to brutal arrests. Now, there are debates regarding the use of algorithms in crime prevention processes; some argue that algorithms should not be used because they raise privacy concerns regarding the use of data, while others argue they shouldn't be used if they have a chance of committing errors.

Although the intended purpose for such algorithms is to aid in crime prevention, critics have argued that an algorithm with any possibility of error and the power of stripping a citizen of their freedom should never be implemented. They emphasize the fact that these algorithms have the ability to affect citizens negatively if they have any chance of failure. In context, they argue that algorithms should not be used because they currently have a possibility of error. Critics say this cause for concern is brought on by the most notable and tragic case of a resident of Denver, Colorado, named Steven Talley. Talley was brutally arrested after being algorithmically

misidentified as a bank robber. After being brutally arrested and having the charges of robbery and assault dropped, he now remains homeless and physically ill (Manning). This instance highlights the fact that algorithms are not infallible; thus, the concern about the use of algorithms in criminal detainment is reasonable.

Another opposing party believes in abstaining from the use of algorithms to aid in crime prevention because of privacy issues. Facial recognition systems have been employed by police departments to detain criminals by analyzing video footage of people walking on the streets. In addition, these algorithms have been employed by businesses such as Walmart to identify repeat and suspect shoplifters. There is a concern among critics about transparency regarding the purpose of collection and use of facial data by governments and businesses; this surveillance by government entities and businesses raises worry for the potential wrongful use of facial data. Given the history of the propensity of government and businesses to act wrongfully and without transparency -- that is, without consideration of citizens -- critics have a case wherein abstaining from using facial recognition algorithms may be valid.

Nevertheless, implementing algorithms to aid government entities in crime prevention is less harmful than not doing so. Governments are precisely faced with the issue of preventing violence, terrorism, and other criminal acts such as theft or fraud to maintain the safety, tranquility, and security of society as a whole. Moreover, with facial recognition algorithms being infallible yet greatly helpful, we have the circumstances under which the argument for using them is valid. Mathematician Hannah Fry states that the New York City Police Department “reported successfully identifying 1,700 suspects leading to 900 arrests, while mismatching five individuals” (172). Here, the error to success ratio is quite low, which is good. In addition, facial recognition algorithms have shown success in Manhattan, New York City, where they helped

identify David Baril, a man who attacked multiple people on the streets of Manhattan using a black hammer; this identification led to the arrest and sentencing of David Baril to twenty-two years in prison (Fry 172). By helping to identify and detain criminals, algorithms have helped governments prevent further crime and maintain safety and security for society as a whole. In contrast, not having used algorithms could have led to an equally large number of criminals not being detained. Given that criminals are likely to commit another crime, crime rates in New York City may have been higher without the use of algorithms and thus detainment of criminals.

The benefits of the implementation of facial recognition algorithms by government entities are twofold because not only do they aid in bringing criminals to justice, but they also prevent further crime. If our government entities can bring criminals to justice and prevent further crime more efficiently with algorithms, then our government entities can more efficiently maintain the safety and security of society as a whole. However, critics will likely still not agree with such practices because of their concerns for the effects of the fallibility of algorithms and certain effects of limited transparency and privacy risks; algorithms used in the processes of crime prevention and business can impact lives of people for the better and for the worse. For these concerns, there is a compromise. With the help of expert computer scientists and researchers, government legislatures should provide regulations for the use of facial recognition algorithms by government entities and businesses; these regulations shall hold governments and businesses accountable for errors in their algorithms and misuse of any facial data collected. Regulation is a viable way to answer the concerns of critics because of the increased accountability and the increased incentive to improve on current algorithms while still reaping the benefits they incur on society.

We realize that there are two options as stated: We can decide to fully implement algorithms with regulations, or we can decide to not use algorithms. To gain more insight into deciding which option is best, we can ask ourselves what the best course of action is given our circumstances and abilities while not being reckless. By doing so, we follow an Aristotelian principle of being virtuous which outlines the correct course of action; this involves courage or knowledge of what to do in a particular circumstance (Crash Course). To find make the correct decision, we have to assess the situation, our abilities, and act accordingly (Elements of Rhetorical Situations"). The current problem or situation is that of choosing to reduce and prevent crime with or without facial recognition algorithms. Weighing the success of reducing crime with algorithms and without algorithms, we can see that algorithms have been a boon to human efforts, not only to detain criminals but also to prevent crime. In the case of using algorithms, we also have to be prudent in their use; the compromise above is a viable answer to that concern. With the compromise, we can achieve the flourishing of society through safety, tranquility, and security.

Implementing algorithms to aid in crime prevention is less harmful than completely abstaining from their use. We must admit, however, that algorithms are fallible and, if used often enough and on large scales, have the potential to affect human lives for the worse through misidentification, leading to improper use of data and crime prevention respectively. However, algorithms have the potential to affect human lives for better through criminal detainment and crime prevention. Therefore, with due compromise and further debate, I hope that facial recognition algorithms will be accepted by critics in the future with the help of regulations, accountability, and transparency.

Annotated Works Cited

Crash Course “Aristotle & Virtue Theory: Crash Course Philosophy #38.” *YouTube*, YouTube,

5 Dec. 2016, <https://youtu.be/PrvtOWEXDIQ>.

SUMMARY: This video outlines and explains Aristotle’s Theory of Virtue. Hank Green, the online educator in the video, emphasizes that Aristotle’s Virtue Theory assumes humans have a “proper function” or nature which focuses on achieving certain characteristics like courage, honesty, and generosity as an individual rather than focusing on following a set of strict guidelines. These characteristics are all “golden means” of their corresponding extremes. For example, to be courageous is not to simply do what you fear most; to be courageous is to first evaluate a situation and act accordingly even if taking action is intimidating which differs from the extreme of being cowardly or being reckless. So, to be virtuous means to achieve the “golden mean” of the set of characteristics indicated above. Now, Hank Green emphasizes that Aristotle’s Virtue Theory is to achieve “eudaimonia” which is a state of “human flourishing.” This human flourishing is a product of having followed the “proper function” or nature of humans.

ASSESS: A dedicated educator and scholar, Hank Green considers the complexity of Aristotle’s Virtue Theory and provides many intuitive examples to help any learner absorb the idea. In addition, the video draws comparisons between Aristotle’s Virtue Theory and Thomas Aquinas’ Natural Law. The video is not biased as it only outlines Aristotle’s Virtue Theory and explains its complexities with simple and understandable examples. This Crash Course video on the Theory of Virtue is informative, simple, and insightful.

REFLECT: Aristotle’s Theory is applicable to the implementation of algorithms in the real world. To be virtuous requires one or many to assess their circumstance and to act properly even if action discourages them. And the characteristics required to be virtuous in Aristotle’s Theory draw parallels between being virtuous and the process of deciding whether society should allow algorithms to permeate our lives in the interest of preventing crime. The video allowed me to understand the ramifications of a decision like the one addressed above and the purpose of achieving virtue which is human flourishing.

“Elements of Rhetorical Situations.” *Purdue Online Writing Lab*, Purdue U, 2019,

https://owl.purdue.edu/owl/general_writing/academic_writing/rhetorical_situation/elements_of_rhetorical_situations.html

SUMMARY: This electronic source provides online learners with knowledge, insights, and applications of the topic of the rhetorical situation and its elements. The Purdue Online Writing Lab considers students and common perspectives had of rhetoric by first defining rhetoric and contrasting rhetoric to these common perspectives. It emphasizes

that every “instance of communication” is unique and should be treated as such. In addition, the Purdue Online Writing Lab provides Aristotle’s view of the rhetorical situation and thus offers students with historical understanding.

ASSESS: The Purdue Online Writing Lab is an invaluable resource that provides students and educators alike with the information and tools to absorb and explain concepts relating to discourse. This resource is provided by Purdue University and recommended to me by my college English professor Dr. Rufel. By considering the history of the rhetorical situation as understood by Aristotle and as understood by current academia, the Purdue Online Writing Lab simplifies and makes relevant the elements of the rhetorical situation. In addition, this source gives a nuanced understanding of the elements of the rhetorical situation by giving Greek understanding of them.

REFLECT: Understanding the rhetorical situation and its elements helps me reach my target audience and identify with them or their perspectives. The information provided by this source works in tandem with Aristotle’s Theory of Virtue to comprehensively analyze and indicate the question that arises in my essay which is the question of using or not using algorithms to prevent crime. More explicitly, the elements of the rhetorical situation help me organize my argument, provide my perspective, appeal to the sensibilities of my audience, and achieve my purpose of persuasion while considering the medium of my communication or rhetoric.

Fry, Hannah. *Hello World: Being Human in the Age of Algorithms*. W.W. Norton & Company, 2018.

SUMMARY: Hannah Fry’s book *Hello World* asks the reader to ponder the consequences of implementing algorithms in our everyday life. The main argument made is that we as a society should swiftly and correctly decide whether we will allow algorithms to permeate our lives. The extent to which we will use algorithms if we decide on allowing algorithms into use is another important question or issue mentioned. The book covers topics regarding algorithms such as crime, justice, automotive industries, medicine, art, and business. There are many real-world applications of algorithms discussed in the book along with the effects of these applications which provide an insightful and revealing story of algorithms.

ASSESS: Considering the technicalities of algorithms, the experienced mathematician, lecturer, researcher, public speaker, and author Dr. Hannah Fry provides a simple and invaluable way of thinking about algorithms and their effects. She offers stories, data, and history to contrast the good and the bad effects of algorithms. The breadth of her discussion on algorithms is revealing of the ongoing effort to apply algorithms in the real-world in areas regarding our phones, cars, social media accounts, medicine, art, crime, and the justice system.

REFLECT: The book *Hello World* provides important stories, data, and practical information that could be a point of debate regarding algorithms. A chapter in the book is dedicated to algorithms regarding crime and another is dedicated to explaining algorithms themselves. It compares and contrasts the cons and the pros of using algorithms in our society while also providing insight into the inner mechanisms of algorithms. In doing so, Dr. Hannah Fry encourages me to voluntarily reassess my knowledge and create a perspective on algorithms. This is reflected in the thesis of this essay and its supporting details.

Manning, Allee. "This Man's Life Was Ruined by Facial Recognition Technology." *Vocativ*,

Vocativ, 1 May 2017, www.vocativ.com/418052/false-facial-recognition-cost-denver-steve-talley-everything/index.html.

SUMMARY: This electronic source provides an account of a man, namely Steven Talley, who was brutally arrested after being falsely identified by algorithms as a bank robber on surveillance footage. The article also highlights the legal battle that Steven Talley has had to endure after being arrested. Steven Talley's account and current condition of homelessness and illness are also provided as evidence for algorithms ruining his life. This article provides the reader with the stark reality and realization of the impacts that algorithms can have on citizens. In addition, this source attempts to provide the perspective of the city that accuses him of such crimes but fails in receiving a response.

ASSESS: Vocativ's article gives an honest explanation of what happened on the day that Steven Talley was arrested, the events that led to his arrest, and the condition of Steven Talley as a result of these events. Rather than using Steve Talley's story as a vehicle for a tirade against algorithms, Vocativ provides an indispensable source that opens the reader's mind to the effects that algorithms can have on citizens.

REFLECT: This article helps me prove an important point and fairly explain the concern or position that my opposition takes. The article raises awareness of the adverse impact of algorithms on Steven Talley. In doing so, the article helps me articulate the adverse impact that algorithms can have on all people while contrasting this with the advantageous impacts that algorithms can have on all people. This resource has inspired me to more deeply ponder the extent to which society can allow algorithms to permeate itself given their impacts.