

**Southern Methodist University**

**EMIS 7357 Fall 2018**

**Analytics for Decision Support**

**Ethics in Data Science**

By

BEICHEN HU

Student ID: 47809766

November 7, 2018

**Excusive Summary**

This essay is mainly about the development trend of ethics in data and computer industry. It is mainly objective to state the limitations of ethics in different places, such as in algorithms, in computer science and technology, in business interests, privacy and other aspects. People cannot just only use the moral ethics as a slogan to appeal, but people also need strengthen the compulsory regulation of moral ethics to guarantee the personal safety and privacy. And the kinds of products that are produced today should be existed to improve happiness, not as a business weapon to make a killing by undermining humanity and fairness.

Table of Contents

[1. The Ethical Data Scientist 4](#_Toc529394940)

[2. Data scientists should adhere to a Hippocratic oath 5](#_Toc529394941)

[3. Computer science faces an ethics crisis 6](#_Toc529394942)

[4. Anonymized data really isn’t 7](#_Toc529394943)

[5. The Unlikely Activists who took on Silicon Valley and won 8](#_Toc529394944)

[6. Facebook Doesn’t Need a Chief Ethics Officer 9](#_Toc529394945)

[7. ethics should be enforced in data science 10](#_Toc529394946)

[Reference 11](#_Toc529394947)

# **The Ethical Data Scientist**

In our modern life, people have been used to think that the conclusion drawn through the algorithm (whether linear or non-linear algorithm) is usually accurate and correct, but do not consider the rationality and interpretability of the algorithm in the design and operation process leading to these results in the algorithm existing inconsistency. Although it seems reasonable, but not human feeling. For example, the racial issues mentioned in the article have some problems, the arrangement of reorganizing families is for the homeless, which would be perfect if racism adds to it, but it also violates the humanitarian spirit. Black people find that it is harder to get a job when they are looking for. I think that is a totally unfair issue, nobody like to be treated in discriminating. At the same time, as a quantitative analyst, he sometimes uses algorithms and data to advise his own interests, but it damages the interests of most people, such as Moody's, who sacrificed their self-esteem and principles as scientists and data analysts for their bonus. Therefore, as a data analyst, in academical, it not only considers the convenience and automation brought by algorithms to our lives, but also adds ethics and morals to make the algorithm more anthropomorphic, making everyone's opportunities in fair. In terms of professional ethics, data analysts should treat each data with a fearless and fair attitude, and make it better for humans, rather than conduct profit operations for personal future.

# **Data scientists should adhere to a Hippocratic oath**

Since the algorithms and software mentioned before have a negative impact with our lives, it is necessary to stipulate some moral and ethical rules to regulate these bad behaviors. According to the criterion referred to the book published by Microsoft recently about the impact of artificial intelligence to the society, the coder and the doctors make the commitment of "first do no harm to others" tied together "is probably a reasonable". Dozens of data scientists grass the professional code of ethics norms. And Patil also hope that data scientists can be integrated, which can use data against with deployment algorithm in the biased criminal justice. They all want to give data scientists more power and rights to criticize unjustified or biased algorithms, while also providing their personal security. But Schaun Wheeler argued that the drafts were not mature enough, not only no one could assess the draft articles in profession, but the proposals did not fully address these complex issues. Aral Balkan also said that the provisions were only as a standard of virtue, but they could not stop the practice of large-scale artificial data farming for profit fundamentally. At the same time, companies consider ethics only when they are aware of their assets under threat. Therefore, it should be improved in oneself from the point of view that of data for me to that of data for others, which can these proposed moral standards be properly implemented.

# **Computer science faces an ethics crisis**

I think the common goal of people in different fields is to invent or find better things to change the world and make the world better. But these people often ignore the negative effects of these products, or it's too late to find out. Computer science is well known in modern society and its purpose is to design software to make our life more convenient. But in the business perspective, sometimes the software can produce interests for companies more than the benefit of the whole social interest. And so far, our system reliability is aimed at doing it run normally, and the collapse of valuation loss interests, but is not the collapse that would be what kind of negative impact on human society and moral. With the development of the Internet, computer technology brings every life closer. However, it is a high degree of correlation that makes the occurrence of problems devastating the whole computer network and life. Therefore, we should not only formulate measures in the field of computer science, but also develop a system of ethics and combine with the field to strictly supervise and enforce these regulations.

# **Anonymized data really isn’t**

With the development of diversified information, more and more personal information exposure on the network platform. The information does not only include personal basic information such as name, gender, phone number, id number, etc., but it also involves some information on our hobbies or characters, such as watching movies, listening to music or loving to eat food, and so on. There are lots of algorithms that can handle more of our information without violating privacy laws and make our privacy extremely vulnerable. Therefore, the current privacy laws need to be changed in order to catch up with our information explosion, so that our human rights and security are guaranteed at the same time.

# **The Unlikely Activists who took on Silicon Valley and won**

Through the smart phone, our lives become more convenience and information, but as we use Facebook or Google apps on the phone, our personal information are controlled by these big data companies gradually. However, the terror thing is that we cannot decide personal information directions, such as the company will be based on the analysis of our personal data which can be filtered to produce useful information and benefit from them. Also, we don't know about data transactions between big companies. But the individual privacy laws seem to have little binding power over these companies, and the new laws are difficult to make because of various circumstances, such as the way these companies are being blocked, and different states have different views. But as we are aware of the privacy leakage and new regulations are steadily being enacted, I think there will be better in the future to guarantee the privacy protection of today's information explosion and the restrictions on large companies' arbitrary handling of our personal information.

# **Facebook Doesn’t Need a Chief Ethics Officer**

As the profession of chief ethics officer has emerged, more companies are thinking about their approach to social responsibility. However, the companies can know rarely that these practices were flawed. In the first place, few people really study what is related to morality. Maybe they only carry out the regulation on the surface of morality superficially, but the underlying things are missing. Second, in the case of conflict of interest with the company, the status of morality is often lower than the interests, which also leads to the incomplete implementation of ethics in the company. If we want to really reform our current attitudes about morality, we need to do more action than just pay attention in morality slogans. In another word, we need to take a practical approach to ensuring the enforcement of ethical rules.

# **ethics should be enforced in data science**

In my opinion, I feel that ethics in data science should be enforced. As we've said before, this is a term of information explosion. All kinds of information are flying around the world, including information that is good for us or useless. First of all, we should learn to distinguish the availability of these information. But at the same time, we should not only consider the value that the information can bring to us, but also pay attention to the fact that data should not be treat before human rights. Furthermore, human personality is the most important thing, and the availability of data should be considered in order to ensure everyone's personality and fairness. Secondly, personal information security should be required by ethics, adding that people should use the data and information to better our human society and world, instead of being enslaved by it. When the companies and businesses sell personal information to gain the money, they should be more empathetic, so that if their own personal information is disposed as well, that is no different from the trampling of their own dignity.

SMU is a good place to respect the development of individuality, values and the right of privacy. When we do the projects, we only used the data from the website and analyzed the meaning behind the data and how to help the company achieve their goals and strategies, but we do not do any commercial use such as selling the data to others for profit.

# **Reference**

1. Hoffmann, Anna Lauren (2017), *Facebook Doesn’t Need a Chief Ethics Officer*. Retrieve on November 7, 2018 from

https://slate.com/technology/2017/01/a-chief-ethics-officer-wont-fix-facebooks-problems.html

1. Cathy O Neil (2016), *The Ethical Data Scientist*. Retrieve on November 7, 2018 from

http://www.slate.com/articles/technology/future\_tense/2016/02/how\_to\_bring\_better\_ethics\_to\_data\_science.html

1. Tom Simonite (2018), *Should data scientists adhere to a Hippocratic Oath?* Retrieve on November 7, 2018 from

https://www.wired.com/story/should-data-scientists-adhere-to-a-hippocratic-oath/

1. Yonatan Zunger (2018), *Computer science faces an ethics crisis*. The Facebook scandal proves it. Retrieve on November 7, 2018 from

https://www.bostonglobe.com/ideas/2018/03/22/computer-science-faces-ethics-crisis-the-cambridge-analytica-scandal-proves/IzaXxl2BsYBtwM4nxezgcP/story.html

1. Nate Anderson (2009), *Anonymized data really isn’t, and here’s why not*. Retrieve on November 7, 2018 from

https://arstechnica.com/tech-policy/2009/09/your-secrets-live-online-in-databases-of-ruin/

1. Nicholas Confessore (2018), The Unlikely Activists who took on Silicon Valley and won, *The New York Times Magazine*