CE 290I Project Proposal – Controlling social media content.

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1 What are the questions we are going to solve?

Nowadays, social medias are used by everyone and people can spend the main part of their day on them, to communicate, to learn, to watch videos and photos, and so on. Social medias are more than platforms where people can interact with each other, they are platforms where people can learn together, share feelings and develop their way of thinking and beliefs. Hence, social medias have a growing influence on everyone, and therefore, it is important to be able to control them. Controlling social media content is of the most importance in order to avoid extreme ideas to be shared to everyone. In our project, we will focus on bad content such as : racist, sexual, violent, extremist, terrorist and so forth.

Being able to control such content will lead to more secure social medias, and more balanced individuals. Therefore, we chose these following questions for the subject of our project: how to control bad content on social media? And how to create a program that can detect every inappropriate content posted?

2 Why are these questions important?

This question of controlling social medias is critical in our society, where extreme organizations are growing. In fact, most of the extreme organizations such as terrorist organizations or racist ones are developing their network and are enrolling people thanks to the use of social medias. In fact, lots of users, especially young users (12-18 years old) are very likely to be influenced by social medias, and are therefore the main targets of extreme organizations.

Furthermore, some researches have showed that people who are involved in extreme organizations on social media (racist group for example) are likely to become involved in them in real life. In fact, since extreme beliefs are very controlled in our society (but not in social medias), people are less likely to talk about them in public places, and thus social medias are the best places to expose their extreme ideas and feelings.

Therefore, controlling the content of social media can be very useful to reduce extreme beliefs and to fight against extreme organizations, especially terrorism. In addition, this control of information can be helpful to find who is likely to be involved in such organizations, and can be used to track terrorists, racists, and so forth.

3 How will you solve them?

To solve these important questions we will create a program that will enable us to detect inappropriate content in order to make social media more secure.

In this project we will focus on two kinds of content.

First, we will focus on explicit content, not hidden, and using clear words. To do so, we will scan all the content on the social media (posts/ articles/ videos) and we will analyze this content. By looking for specific words that are very likely to be associated with extreme beliefs and ideas, we will be able to control bad content.

Then, we will also focus on a second type of content: hidden content, not explicit, using encrypted messages (cryptography).

Cryptography allows people to store confidential information or transmit it over unsecured networks (such as social media) so that, no one other than the recipient can read it.
A cryptographic algorithm is a mathematical function used during the encryption and decryption process. This algorithm is associated with a specific key, used to encrypt the text. The security of encrypted messages relies on two elements: the invulnerability of the cryptographic algorithm and the confidentiality of the key. In fact, lots of extreme organizations are interacting using encrypted messages, and thus, being able to decrypt them is of the most importance for security purpose.

For our project, we will focus on common cryptographic algorithms. We will analyze all encrypted messages with each of the most common algorithms, in order to find the real meaning of such contents. Furthermore, in order to have a real impact, we will not only try to control English contents, but also foreign ones.