

Actual Presentation

Overview

There are researchers that have developed a software that allows them to determine a writers gender based off of their writing style that doesn't use key words such as "I am a man" or "I am female" but rather uses Convolutional Neural Networks and well developed Machine Learning algorithms to determine gender based off of the general structure of the writing. The program is not perfect however and can only determine the writers gender correctly 80% of the time. This is something that they are still improving upon and I am sure that over time they will be able to make. While this may not be the most practical application of this software (because gender can simply be determined by asking) you would possibly be able to extend this software to more practical general questions based off of someones text/written responses to some questions you may ask (the likelihood that they are lying, if they like you, etc..) the program seems to be in it baby phases but I'm sure that it will be able to improve as time goes on.

What Happened?

Writing style has always been a rather clear indicator of the person that is writing

- Used to diagnose if they have dementia or depression, people have been able to use the combination of deep learning algorithm and neural networks that can determine these things.

- By simply passing through a set of text the machine can understand what the gender of the user is. This is done not by interpreting what is said but HOW it is said.

1. Uses neural networks and machine learning algorithms to determine gender based off of the writing style
2. Using this software you could determine what gender the person who wrote it was
3. Expand to determine more intimate facts about the person
4. All based on how they write and instead of how humans do it bad on what they write

Problems: Trying to sound like the opposite gender

This was simple at first, but it became much harder. One of the chief engineers working on this project, Alexander Sboyev, understood that this was something that could be easily tricked by simply trying to write as the opposite gender, trick the machine. To prevent this Dr. Sboyev decided that it would be best to create a

program that could determine a gender regardless on who was trying to hide their information. So if for instance someone wrote something trying to sound like a women as a man the machine would be able to easily determine what was wrong with the system

1. Easy at first but became hard bc people trying to trick the machines
2. Alexander Sboyev chief engineer
3. Create a program that could determine regardless of what was written

How can this help the world?

Information gathering:

Gathering information on the people communication through your platform is important. Of course information is power and being able to understand more about your user base is the way that many modern companies grow especially in the technological age of today. This is a wildly important aspect of being able to gather information especially when people choose to not disclose information to you.

1. Gathering information is key
2. Gathering information helps humankind grow
3. Helpful for companies to determine facts about their users
4. Use it to expand the info that they have and help grow their business
5. The information gives them insight into how to cater things to people

Catching mental illnesses

These systems can also help to determine information about people before they even know certain things about themselves. For instance you could use these machines to help prevent people with mental illnesses from committing any drastic decision that could put themselves in harms way.

1. Catching mental illness saves lives people

Other Unknown information:

We can possibly put this to use in a way that we may not even realize yet, to gather information about the user that they may not even know about themselves

1. Can tell us things that we don't even know yet.
2. This information gathering can potentially reveal new things about the people that are writing

Is this wrong?

Two sides to this story

Yes this is wrong:

For people who believe this is an invasion of privacy. It is, but since nothing is definite (the persons gender is only 80% accurate) this can cause some bit of a debate. Some people may believe that this is wrong for many reasons and that this should by no means be done because it is gathering information about people that should be private.

1. People think that it is wrong to assume someone's gender and gather information about people unknowingly
2. The information could be incorrect and people don't want to draw wrong information from 80% accuracy

No this is fine:

For the people in this category it can be tricky because you can claim to only be inferring this information about these people and it could not be true. On the other hand the information that you infer could be used to save someone's life in the situation of a mental illness. So this can be used as a double sided sword.

1. People believe that since you are inferring it is fine to use this
2. They think that information (even incorrect information) can help us learn how to be come better

Other issues (social):

The topic of gender can be very hard to deal with, so it may be the case that this algorithm determines people's birth gender and not the gender that they are now. Much of this can be a very hot topic debate and to prevent any issues from arising I think that this is technology that has lots of potential but has been applied incorrectly.

1. Many people find that assuming gender is wrong, and the gender that it determines could be different that the gender that people identify with now.
2. This can offend a lot of people because gender is a very touchy topic today. So assuming a persons gender can cause a lot of social issues