

Project Proposal

Proposal

Can information about a college student's current use of technology be used to predict the GPA he will have at the end of the semester?

Description

The way a person uses or does not use technology (phones, tablets, TVs, computers, etc.) effects nearly all areas of his life. We believe that there must be some degree of correlation between a college student's technology habits and grades he receives. We propose to gather some general information about college students, some specific information about the devices they have and the way they use them, and their GPA the previous semester. With this data we will try to identify a smaller feature set that can strongly predict what their GPA will be at the end of the current semester.

Features and Data Sources

Most data would be gathered from an online survey of some kind. We would post the survey everywhere on digital media and collect responses. Also, we would invite specific people to take the survey and ask them to pass it along to others. The survey would ask for the following features on a weekly basis:

- Have a smart phone?
- Have a TV?
- Hours spent using phone (text/call)
- Hours spent watching TV
- Hours spent watching movies
- Hours spent playing video games
- Hours spent on computer
- Hours spent surfing web (personal time)
- Hours spent on facebook
- Hours spent on youtube
- Hours spent on game apps
- The number days a person uses each of the things for which we measured hours spent
- Gender (1 for male)
- Married
- Credits this semester

Example: (1, 1, 10, 2, 1.5, 1, 50, 1, 0, 1, 0, 7, 1, 1, 1, 7, 3, 0, 4, 0, 1, 1, 9)

The number of features is large enough that much of the training will be helping to identify which features are unimportant and which can be merged into a combined feature. Ultimately students should be able to feed the model a subset of the features listed above and the model will be able to predict what their GPA will likely be by the end of the semester.

I wouldn't mind working on this project, though I won't freak out if I'm assigned to something else.