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Rhetorical Analysis of Lab Reports

Writing For Engineering

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While analyzing the two articles that were both based on GPS tracking of cars, one is called “Real-Time Vehicle Tracking System Using Arduino, GPS, GSM and Web-Based Technologies” and the other one is called “Real Time Vehicle Tracking Using Arduino Mega”. I found some similarities and also some differences in the way that they organized both reports and each of their elements like it is explained in chapter 19 of the textbook. Firstable from the title I am able to see that the one that talks about GPS,GSM is going to be a longer report since it needs to address all of those points that are mentioned in the title, but for the other one it is mainly going to talk about Arduino,since that is the only information that the report is giving us it cannot go outside of what it says in the title, for the abstract the one about GSM talked about the background of what vehicle tracking is and how it works but for the one that talked about Arduino, it mentioned why it is good and necessary for us to have a vehicle tracking system, it talked about the many benefits that it offers and also what the whole paper is going to be about in a very short and straightforward kind of matter whereas the other one the abstract seems to be longer. In the abstract the reports would have a summarized section of everything that is going to be included, so for the one that mentions GSM it is going to have, what softwares is being used and the real tracking system that is being proposed in this lab report. It mentions the programming language and the data that it gives like longitude and latitude. The one that is about Arduino, from the abstract I can infer that the results show how the tracking system can benefit

users of the car. Information about what motivated the author of the report that talks about GSM seems to be missing since it just goes straight into what tracking system is and how it works, but for the other one it says that the GPS can help automobile drivers not get into the wrong location while driving or the longer route and how GPS can help in the management of vehicle fleets or even vehicles that are stolen by mapping and surveilling. This report has a very clear goal of what the entire report is, unlike the other one, in which I read it and still don't get what the overall goal of the report is or what motivated their study on GPS and GSM.

For the introduction, I saw a similar pattern for both reports and that is that both of them start talking about the vehicle tracking system, they mention what it is and why it is useful. Both reports took advantage and decided to provide any additional background information about what vehicle tracking is and what else the reader needs to know before diving into the heavy technical language, it explains what a GPS, GSM and what Arduino Mega are. It says why and how these things started. The one that talks about Arduino even mentions examples of how when a car gets stolen the GPS and the GSM are at work to help identify its location and also how it alerts the user of the car and even takes a picture of the thief and it gets automatically sent to the user. It says that the user has the option to inform the police about it. Additionally it says that it has an SOS feature in which the driver can press it in case it has an emergency or when a thief gets inside and has hostages in the car. In my opinion from reading this much in the introduction about GPS and Arduino I think that it is a great thing to have and every vehicle should have one of those installed, although most new cars already have them I think it should be installed in each and every car.

For the Materials and Methods section of the lab report that uses Arduino Mega. It has very specific steps. It is written in a way that is understandable since I was able to read it and follow. A good thing that was accomplished in this report was that after reading the method section of it, I was left with the feeling that what they did was logical and it definitely addresses what they have written in the introduction, about how they make these installations very safe for vehicle users. For the other report it doesn't really have a section that is named Materials or Methods but what it does have is a section that is called "Overview of Proposed System" in this section the materials what is going to be in the system is in there and also how it is going to be done is also in there, which means that not all lab reports have that same name for they section but they basically talk about the same thing. In this section I read that they will use antennas, a power supply, a web server, a GPS and a GSM module, an Arduino uno and a user interface for their experiment. It also explains the methods in a sentence-manner instead of doing it step by step which is better because that way it is better able to explain things that may not be so clear for people that are not very familiar with the whole concept, instead it amplifies the instructions by adding words, and in my opinion that is better than simply stating it in one sentence every step that was done because in the end the reader ends up with a much better understanding, because it was explained more thoroughly and in a way that the reader understands why these things were done and not just knowing that it was done.

For the results section of these lab reports I also noticed that neither of them have a section that is named "Results" instead what they both did was that they included the results section in the report without having a separate section for it. For the Arduino Mega one, the results show what was actually expected in the abstract and the introduction, it showed that it was successful

in keeping people safe by having the tracking system work efficiently as expected. It alerted the user when another person that it's not the driver went into the car, the SOS emergency button worked and the location of the car worked exactly with the same exact coordinates of longitude and latitude. For the other report the results have a slight variation because it has pictures and diagrams included on it. The results show a successful code using Arduino IDE of a bus tracking system. In this code we are able to see that it gives the latitude and longitude, it also gives the time and date, speed and it even offers information about satellites. In another picture we are able to see the tracking system apparatus that was built, we are able to see the electric cords, the batteries, the power supply and all of the other components that go into it. Below the picture there is also a thorough description of what it is actually showing as a result and what it means. I believe that this is very helpful because they can give a lot of descriptive words as to what happened after they ended the experiment but with a picture it is still a lot better to understand it, by actually seeing what they mean.

For the discussion, they also both did not have the name discussion on the section, but they did have a discussion by analyzing and interpreting the different results that were obtained. They both were able to analyze their results and obtain interpretations as to why these things happened. Analyzing both of these reports I noticed that they do not include a lot of the sections that were included in the book in chapter 19. In my opinion I think the reason for that is that the author just assumes that the reader knows and understands that it doesn't need to have a section on discussion or results instead that it can just be put together in another section and talk about it in there. The reason as to why the author chose to do it this way might be because it will probably just have one or two sentences if the author decides to make a section of those

separately so instead he/she decides to just put some of them together into one or two paragraphs. Another reason as to why the authors may have decided to do this is because it is an idea that goes hand in hand with what they are talking about, so if they are talking about GPS and how it can benefit society and how they did the experiment they also could add the results that they obtained.

For the Conclusion section that they both had they both wrote about exactly what the report had in terms of content without being too specific. They both summarized the main points of the report. One thing that they both did that is in the book for the conclusion section is that both of them also reviewed the purpose of the experiment like the reason as to why this experiment was done.

In conclusion, after reading and analyzing both of these reports on vehicle tracking, I was able to find many similarities in the way that the book presents the information and how it is portrayed in the reports. I was also able to find differences as well, one of the differences that I saw was that in the lab reports they decided to not include all of the eight basic elements of the lab report and just decided to put together some of the elements.

References

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