There are numbers of data that could be displayed and inventoried with the use of GIS or Geographic Information System such as from natural resources, wildlife, cultural resources, wells, springs, water lines, fire hydrants, roads, streams and also houses. The quantities and so the densities of a certain item within a given area could be displayed and calculated. But there are still many things that you could do with the use of GIS technology.

**Here are some of the advantages of using GIS technology:**

It has the ability of improving the organizational integration. GIS would then integrate software, hardware and also data in order to capture, analyse, manage and so display all forms of information being geographically referenced.

GIS would also allow viewing, questioning, understanding, visualizing and interpreting the data into numbers of ways which will reveal relationships, trends and patterns in the form of globes, maps, charts and reports.

Geographic Information System is to provide a help in answering questions as well as solve problems through looking at the data in a way which is easily and quickly shared.

GIS technology could also be integrated into framework of any enterprise information system.

And there would be numbers of employment opportunities.

Those are among the advantages that could be provided with the use of GIS technology. Considering the use of the said technology might be considered as of great decision to make.

**On the other hand, there are as well some disadvantages that might be experienced because of using the GIS technology. And some of those are drawbacks are the following:**

GIS technology might be considered as expensive software.

It as well requires enormous data inputs amount that are needed to be practical for some other tasks and so the more data that is to put in.

Since the earth is round and so there would be geographic error that will increase as you get in a larger scale.

GIS layers might lead to some costly mistakes once the property agents are to interpret the GIS map or the design of the engineer around the utility lines of the GIS.

There might be failures in initiating or initiating additional effort in order to fully implement the GIS but there might be large benefits to anticipate as well.

Generalization may lead to loss of important information: In performing data analysis using a GIS system, there is a lot of generalization due to the massive data being analyzed. The user stands to lose a lot of information due to the generalization of data.

Those are among the pitfalls with the use of GIS technology and so could be experienced or not based on some instances. The above-mentioned disadvantages could be considered as case-to-case basis based on how efficient the GIS technology will be used.

**GIS Errors, Accuracy, and Precision**

Errors can be injected at many points in a GIS analysis, and one of the largest sources of error is the data collected. Each time a new dataset is used in a GIS analysis, new error possibilities are also introduced. One of the feature benefits of GIS is the ability to use information from many sources, so the need to have an understanding of the quality of the data is extremely important.

Accuracy in GIS is the degree to which information on a map matches real-world values. It is an issue that pertains both to the quality of the data collected and the number of errors contained in a dataset or a map. One everyday example of this sort of error would be if an online advertisement showed a sweater of a certain color and pattern, yet when you received it, the color was slightly off.

Precision refers to the level of measurement and exactness of description in a GIS database. Map precision is similar to decimal precision. Precise location data may measure position to a fraction of a unit (meters, feet, inches, etc.). Precision attribute information may specify the characteristics of features in great detail. As an example of precision, say you try on two pairs of shoes of the same size but different colors. One pair fits as you would expect, but the other pair is too short. Do you suspect a quality issue with the shoes or do you buy the shoes that fit? Would you do the same when selecting GIS data for a project?

The more accurate and precise the data, the higher cost to obtain and store it because it can be very difficult to obtain and will require larger data files. For example, a 1-meter-resolution aerial photograph will cost more to collect (increased equipment resolution) and cost more to store (greater pixel volume) than a 30-meter-resolution aerial photograph.

Highly precise data does not necessarily correlate to highly accurate data nor does highly accurate data imply high precision data. They are two separate and distinct measurements. Relative accuracy and precision, and the inherent error of both precision and accuracy of GIS data determine data quality.