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Geographic Information Systems in Business Solutions/Strategies

**Technology**
Geographic Information Systems in Business Solutions/Strategies

**Definition**
A graphic information system is used by a business to create solutions and form strategies. This information assists a business in the analysis of inputted data to run more efficiently or be more successful. These systems are able to take several different data sets and combine them visually to easily view complex situations. Although the data sets are seemingly unrelated, when combined a clear picture is drawn. The 3D visualizations create previously unseen solutions and strategies.

**National/international Standards**
While there are no official national or international standards or practices for this type of software, the Geographical Development: Geospatial Communication Network at [http://beta.gisdevelopment.net/](http://beta.gisdevelopment.net/) does list many white papers by subject.

Different GIS software applications also share several common characteristics, such as mapping, GPS, surveying, cartography remote sensing, photography, location based services, mobile applications, and geospatial capabilities.
Many factors determine the success of a business, whether it’s brand new or part of a chain. Using an established geographical information system, a business could examine their current locations along with their competitors and the demographics of the surrounding community to decide whether or not to open a new store and where to do it. This technology could be the real difference between success and failure to a new company.

**Major players**

ESRI- [http://www.esri.com](http://www.esri.com)
Autodesk- [http://www.autodesk.com](http://www.autodesk.com)

**Practicality**

Many factors determine the success of a business, whether it’s brand new or part of a chain. Using an established geographical information system, a business could examine their current locations along with their competitors and the demographics of the surrounding community to decide whether or not to open a new store and where to do it. This technology could be the real difference between success and failure to a new company.
Who are the major companies producing/using geographical information systems in business?
ESRI and Google are some of the major companies who produce GIS software that can be used by businesses. ESRI has many specialization products for a wide variety of industries such as government, natural resources, transportation and utilities. While these software applications are highly customizable, there are also many open source applications available for free online.

How does the technology function in practical terms?
Basically, this technology works by combining the data provided by the user along with existing information like maps and demographics. The following is a great example form ESRI.

References
- [http://beta.gisdevelopment.net/](http://beta.gisdevelopment.net/)
Data

How the data is gathered and who gathers it?
The data is gathered by the user and by 3rd party companies. The data from the user can be both input but the user or imported from existing sources. 3rd party data can come from Google maps and independent surveys.

Do other technologies come into play?
Data can be imported from other databases and spreadsheets.

Processing and Display

How is the data is processed, transformed, and displayed?
The data from both the user and other sources is combined by the software and transformed into a #D geospatial map or graph.

Are there levels of sophistication tailored to the needs of the client?
Yes, a user can simply input one type of data into the software or query the many data sets that have been inputted.

Case Study Report

Name of Case Study
GIS and Web Services Help Manufacturer Find the Best Retailers

Original Author
ESRI @ http://www.esri.com
**Company Covered**
Levi Strauss & Co.

**Summary**
Levi Strauss & Co. was looking for a cost effective solution to manage growth and approval of new retailers. The company receives thousands of requests per year from local and national retailers who want to sell Levi Strauss products. Before approving requests, the company needs to analyze its existing and discontinued approved retailers, sales, and the surrounding area’s demographics. The problem was that they were outsourcing some of these tasks to several companies and making costly on-site visits to the areas that requested approval. Using ESRI’s BusinessMAP and Business Analyst Online software products, they were able to perform all necessary tasks in house and instantly, saving the company time and money.

**Importance**
For Levi Strauss & Co., GIS solved a major and time-consuming task. It could take months for a local or national retailer to apply for and receive approval to sell Levi Strauss & Co. products. Not only was the processing of the application costing the company time and money, the time lost in selling their product was too. With GIS software, the company was able to instantly receive the request, see a map of the area with markers on their other retailers, past and present and the surrounding area’s demographics. By marking their current retailers, Levi Strauss & Co. could easily see and protect their other retailers’ territory from market overload. By viewing past retailers, they could see where they had stores that didn’t succeed, indicating that a retailer might not be successful in that location and therefore avoiding a costly mistake. By viewing the demographics of the area, they could see if there was a market for specialty items like western wear or work gear.

**Application**
Using the GIS technology in business setting, a company can eliminate or combine unnecessary tasks. While Levi Strauss and Co. is a well-known and thriving business through out the world; this technology could assist a local mom and pop company just as well. If a baker wants to open a bakery in his neighborhood so that he can work close to his house, it would be a great benefit for him to check out the this software; it could be the difference between success and failure. He could see all other existing bakeries in the area, past bakeries and the area demographics. Perhaps he’ll find that there are no others in the area for 30 miles and that he will corner the market, or that there are several in the area and some have closed because the market was flooded or that there is a bakery specializing in breads while he is specialize in pastries. There could be an opportunity for a partnership.