Memorandum

To: Dr. Reese  
From: Mike Schierbeek  
Subject: Internet research assignment answers

This assignment requires the use of the internet to conduct research in given areas. The U.S. Census Bureau, Arbitron were two of the websites given to research. All websites are also required to be cited.

1. According to the 2000 US census there were 8,443 people between the ages of 18 and 24 in Allegan County, Michigan. The 2008 estimate is 9,548 individuals between 18 and 24 of which 4,938 are male and 4,610 are female.


2. Allegan County, Michigan had eight engineering and thirteen veterinary service business establishments according to the 2002 County Business Patterns from the U.S. Census Bureau. This also states that retail sales is the sector with the largest number of employment locations.


3. A ARBITRON rating is used to measure the audience listing to a particular radio station and their market data. It is used by advertising companies to help them make decisions about where to place adds. WGRD FM out of the Grand Rapids market has a rating of 7.6 which is the average number of people listening to this station for at least 5 minutes out of a 15 minute time period. The ratings were high last summer but dropped to 4.6 last winter.


4. Year | Number of Farms | Average Farm Size |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1,595</td>
<td>172</td>
</tr>
<tr>
<td>2002</td>
<td>1,489</td>
<td>163</td>
</tr>
<tr>
<td>1997</td>
<td>1,337</td>
<td>177</td>
</tr>
<tr>
<td>1992</td>
<td>1,469</td>
<td>168</td>
</tr>
</tbody>
</table>

There is a low number of farm is the 1997 census this could be due to the low pork prices of the mid 1990’s which caused many small pork producers in Allegan County, including my dad, to quit farming. The average size fluctuates opposite the number of farms because as there are more farms competing for the same amount of land it forces farm sizes to get smaller.

5. The first result was the same for Google and Ask, but by putting quotations around them they changed for each search engine. There are fewer results when you put quotations around the search keyword it looks for the keywords in the exact order placed.

<table>
<thead>
<tr>
<th>Search Engine</th>
<th>First Search w/out quotes</th>
<th>Second Search with quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
<td>1,700,000</td>
<td>404,000</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>47,600</td>
<td>17,500</td>
</tr>
<tr>
<td>Yahoo</td>
<td>1,710,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Ask.com</td>
<td>135,000</td>
<td>135,000</td>
</tr>
</tbody>
</table>

6. When I searched in the Google directory I got 199 results. The search was under the science category. It seems that most of the results are universities or government websites. One of the websites given in the search is from North Carolina’s division of water quality at http://h2o.enr.state.nc.us/nps/. A directory collects and organizes sites with human oversight while a search engine uses first the url and then searches through the site.


7. Broader searches related to nonpoint source pollution are water pollution, runoff, water quality and polluted runoff.


8. A search engine creates an index of websites and then match queries against this index. The index consists of words in the html, the metadata, in the title, and in the document itself.

9. A website is listed first in a search when the search engine looks in its directory and finds the words searched for in the URL. The next sites have the query in their metadata followed by sites with the query in their title. Last listed are the sites with the search query in the body of the site.

10. An advanced search allows you to focus your search. In Google’s advanced search you can search for phrases, words with an or between them, list unwanted words, types of files, and different languages. This would be good to use if you were searching for a pdf electricity technote from Michigan State but didn’t want one from the engineering department.

I learned that many areas of the internet are not available through search engines. I also learned how to refine searches and use different search engines to receive better results. I also learned some interesting information about my home county.