I. History of ManyEyes

What is ManyEyes? Where did it come from?

Many Eyes was created so people would be able to upload and share their data. However, this is a unique site that allows the data to be organized in a creative way. People that are members of Many Eyes can then comment on the data, or share their own data among the other members. It is an interactive visualization that allows for commentary on any of the projects.

Many Eyes was created by Frenanda Viégas and Martin Wattenberg in 2007 through the Visual Communication Lab. It was backed by the company IBM. The program was based of the works of both Viégas and Wattenberg’s separate creations. Viégas created a program to visualize email archives. People loved the experiment so much, and the thought of sharing their information. About two years later, Wattenberg designed a
program that visually showed baby names and their popularities. It quickly became an internet sensation. People began using the technique for fun, as well as to analyze business data. IBM and Visual Communication Lab wanted to create a social site where people could creatively share data in a new way. With this idea, Many Eyes was created.

How does ManyEyes work? What can you do?

Without registering:

- **View and discuss visualizations**
  - All the visualizations on Many Eyes have an attached discussion forum. As you explore a visualization, you may find a view that you'd like to talk about or share. If you post a comment, your “view” is saved along with your comment so others can see what you're seeing.
  
  Each visualization lets you select data items by clicking. Your selection will be highlighted in a bright color, so that you can refer to those items in your comments. This simple feature is very convenient: it’s much nicer to say "Look at the circled part of the graph" than "look at the thing sort of at the upper right".

- **View and discuss data sets**
  - All visualizations in Many Eyes are based on a collection of shared data sets held on the site. You'll see that many data sets and visualizations are the subject of an active discussion. Anyone can browse the list of data sets.

- **Create visualizations from existing data sets**
  - One of the most exciting features of Many Eyes is the ability to create interactive visualizations from any of the data sets on the site.
  
  Finding the right way view your data is as much an art as a science. The visualizations provided on Many Eyes range from the ordinary to the experimental.

If you register:

- **Rate data sets and visualizations**
  - Rating data sets and visualizations is a helpful way to let users quickly find some of the best content on Many Eyes. Each time you rate an item, you attach a “plus one” or a “minus one” to it. Many Eyes ratings also have a qualitative aspect, which allows you to express whether, for instance, you like a visualization because it is funny or because it is beautiful. You may also want to flag a data set as being either a “test” or having a “suspicious source.”

- **Upload your own data**
  - After you register, you can upload new data sets to Many Eyes. Seeding the site with shared data is an important part of being able to engage others in collective sensemaking and insight sharing.

- **Create and participate in topic centers**
  - Topic centers are a great way of organizing content around a theme of interest to you. They function like small portals where you can collect all visualizations and data sets that are related to your theme. You can also start discussions in a topic center. All registered users can create and join topic centers. Only members can contribute visualizations, data sets, and comments to a topic center.

- **Select items to watch**
  - Users with an account can choose to be notified when there is new activity around a visualization or a data set of interest to them. To monitor items of interest, simply click on the “watch this” button. You can stop monitoring any visualization (or data set) by simply clicking on the “quit watching” button (or by going to your user page, which lists the “quit watching”)

- **Track your contributions, watchlist, and topic centers**
  - As a registered user, you can keep track of all your activity on Many Eyes. This also makes it easier for others to interact with you on the site because your activity history creates your identity here.

- **See comments others have written to you**
  - Registered users automatically get a “user page” that compiles all of their activity on the site (as well as the activity in their watchlist). Others can leave messages to a user by using the "Messages" feature at the bottom of user pages. The owner of a user page has mediation privileges over messages left on their user page: they may either delete or reply to messages left for them.

ManyEyes assists you in making easy to understand visualizations that you can share with others. Follow these simple steps to create your very own visualization:

1. Go to the ManyEyes website.
2. Register and upload your own data set or choose a premade data set.

3. Click the visualize button.

4. Select which type of visualization you would like to create.

5. Add a visualization title, any tags, and a description to your visualization.

6. Click the Publish button to complete your visualization.
After completing these steps, you have successfully created a visualization. From this point you can print out your visualization, share it, or create a whole new one.

II. How ManyEyes Relates to Other Applications

There are many other applications that are very similar to ManyEyes one of them is Swivel. Swivel is a wiki that allows you to input data and make a visualization that you can display. ManyEyes is mainly used for educational purposes where Swivel is mainly used for business purposes. On Swivel there are only a few different visualizations you can use to display your data. With ManyEyes there are numerous different visualizations you can use to display your data. With ManyEyes you are able to comment on other people’s data and visualizations to help improve them, you are also able to take a screen shot so they know exactly what you are talking about. You are unable to do this with Swivel. ManyEyes uses Java which allows the user to interact with the website but some computers will not run it and it can be very slow at times. Swivel uses AJAX which does not allow the user to interact as well with the website but it will work on all computers and is faster that Java. The technology used on the website is important because it determines how user friendly it is.

III. Real World Application

Many Eyes can be used in the real world in numerous ways. Students, teachers, parents, bible school teachers, or any educator can use this application to include in their educating or for any other aspect needed. With the use of Many Eyes, anyone can create line graphs, scatter plots, world maps, bar chart, block histogram, network diagrams, along with many others. This application is free and is very easy to download and use. This will allow the general public easier access. Users of Many Eyes are able to comment and discuss on each others works making this a a great real world application.

One example of a real world use is when a teacher uses the geographical map features. The maps on Many Eyes can overlay data values on geographic regions. A teacher can use these maps to see spatial patterns in the data. This will educate students on various aspects of geographic maps and even get them familiar with different data.

Another great example of a real world application is the use of a researcher or other business professional creating visualizations for different subjects. One research aspect could be world internet usage. Using Many Eyes, the user can create various visualizations of world internet usage. They can then show their clients or employers a visual of their main objective. Many Eyes is a great application and is used in numerous ways making it great for real world education and use.
IV. Educational Value

Using Many Eyes allows for one of the most primitive of ways of giving information to keep up with today’s ever expanding Web 2.0 technologies. This application allows the power of the lesson plan to be directly be given to the individual and have them communicate, share, learn, and improve. Many Eyes does this by being internet based. Which allows any user all around the world to upload data and comment on their own or others' work.

Important Points

**New view on visuals** - A musician's talent and skill can not be without their instrument. In the modern classroom that instrument would be the power point. But how due we improve this tool? For the next generation of teachers they are being instructed in Web 2.0 technologies across the world. What about those teachers already in the classroom? Just as a musician has been trained in one instrument which makes learning others very difficult. Some of the Web 2.0 technologies would require a complete over hall of a power point dependent lesson plan, but others can easily incorporated into that lesson to make sweet sweet music. Many Eyes is one of those applications which can easily be added to a power point but allow that information more tangible compared to the typical visual.

**Social Side** - Many Eyes has built part of its success on the fact that they allow every user to not only upload their on data but also promote that they comment and share with others work. This makes peer editing easy as commenting on your friends pictures on Facebook or tweeting like a bird spring.

**Power to the Learner** - As useful as this application is to the teacher it can be just as powerful to the student. Classic example statistics, given the assignment create a survey, collect date, present results. Web 2.0 technologies make this a breeze for insistence create two events on Facebook invite half of your friends to one the other half to the second event. If event one which was pool party had significantly more guest attending compared to event two which was trash pick up party the student can assume pools are more fun than trash to his friends. The student could then upload this data on to onto Many Eyes print out the visual and be safe assure they will have something no one else will.

Lesson Plans

<p>| Elementary Education Grade 5 | A STEM based lesson plan for 5th graders that allows them to use ManyEyes to create a study tool of the vocab words for their science chapter that will appear on their test. | ^lesson plan 1.doc |</p>
<table>
<thead>
<tr>
<th>Education Level</th>
<th>Description</th>
<th>Document(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Education 6</td>
<td>A lesson plan incorporated into a book report project. After completing the book, students will use ManyEyes to create a visual representation of what they learned from their novel. This visual aid will be used to help them present their material to the class.</td>
<td>^lesson plan 2.doc</td>
</tr>
</tbody>
</table>
| Elementary Education 3| A lesson plan that teaches students about Australian wildlife. They will use ManyEyes to create a visualization using the list provided by their teacher. | ^Australian Animals Grade 3.pdf  
^Australian Animals Grade 3.docx |
| Secondary Education 10| A lesson plan that teaches students about the events of Pearl Harbor and helps the students relate to those events. | ^Pearl Harbor Grade 10.pdf  
^Pearl Harbor Grade 10.docx |
| Secondary Education   | A lesson plan that teachers can use about swine.                           | Swine STEM lesson plan.docx  
Swine STEM lesson plan.pdf |
| Grades 9-12           | A stem based lesson plan that lets students comprehend data and create visualizations using the data. | Crop Production.pdf  
Crop Production.docx |
| Post Secondary        | Given two weeks to prepare students working in groups of four will put together a campaign using an assigned marketing technique and post election results on www.many-eyes.com. | ^Election Lesson Plan.pdf  
^Election Lesson Plan.docx  
^Election Lesson Plan.pdf |
| Post Secondary        | A stem based lesson plan that teachers can use about animal nutrition.      | Animal Nutrition STEM lesson plan.docx  
Animal Nutrition STEM lesson plan.pdf |
| Post Secondary        | Given two visualizations one made on a power point the other made on www.many-eyes.com will present them one at a time to third grade class. | ^Information Intake Lesson Plan.pdf  
^Information Intake Lesson Plan.docx |

**V. How ManyEyes is Used Internationally?**

Many Eyes allows any internet user around the globe to create, comment, complete any task its user how a need to show. Which means that any project that can be done in one location can be shared, started, and finished anywhere in the world with an internet connection. This allows all the countries and people to becomes one race on one earth. Can you visualize that? And just to prove it here is a video on how to use Many Eyes in Portuguese.

**VI. References**

http://portent.org/category/data/
http://eagereyes.org/VisCrit/Swivel-vs-Many-Eyes.html