2.7 Visualization Color and Font Specification

Color Specification

About The Color Selection Process

Color selection based on work by Martin Krzywinski (http://mkweb.bcgsc.ca) and Cynthia Brewer (http://colorbrewer2.org).

Temporal Bar Graph

Starting off with an example of a 15-color palette that is safe for color blindness (below).

Eliminating 5 of the colors that are either too dark or too light, we get our 10-color palette for the Temporal Bar Graph.

We convert these colors to greyscale to check if there is enough contrast between shades for people that are visually challenged.

Next, we place them side by side and then arrange them from dark to light.
For comparison, here’s a line of swatches using only variations of black and reduced by 10% in each successive swatch.

Based off of the image above, it looks like we’re doing well with the original color values in the first image. Below are the swatches and RGB values for the swatches and for use in the Temporal Bar Graph.

### Bipartite Network Colors

<p>| | | | | | | | | | | | | | | | |</p>
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>73</td>
<td>146</td>
<td>255</td>
<td>254</td>
<td>41</td>
<td>182</td>
<td>219</td>
<td>142</td>
<td>255</td>
<td>220</td>
<td>109</td>
<td>98</td>
<td>255</td>
<td></td>
<td></td>
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<tr>
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<td>73</td>
<td>146</td>
<td>109</td>
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<td>255</td>
<td>220</td>
<td>109</td>
<td>0</td>
<td>0</td>
<td>109</td>
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</tr>
</tbody>
</table>

### Geographical Map Colors

These are taken directly from Katy's ColorBlender examples from email
Map of Science Colors

See: http://sci.cns.iu.edu/standards.html
<table>
<thead>
<tr>
<th>Science Discipline</th>
<th>Pajek Color Name</th>
<th>Color</th>
<th>RGB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>Olive Green</td>
<td><img src="image" alt="Olive Green" /></td>
<td>55, 153, 8</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Emerald</td>
<td><img src="image" alt="Emerald" /></td>
<td>0, 255, 128</td>
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<tr>
<td>Brain Research</td>
<td>Dandelion</td>
<td><img src="image" alt="Dandelion" /></td>
<td>255, 181, 41</td>
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<tr>
<td>Chemical, Mechanical &amp; Civil Engineering</td>
<td>SkyBlue</td>
<td><img src="image" alt="SkyBlue" /></td>
<td>97, 255, 255</td>
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<tr>
<td>Chemistry</td>
<td>Blue</td>
<td><img src="image" alt="Blue" /></td>
<td>0, 0, 255</td>
</tr>
<tr>
<td>Earth Sciences</td>
<td>Mahogany</td>
<td><img src="image" alt="Mahogany" /></td>
<td>167, 25, 22</td>
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<tr>
<td>Electrical Engineering &amp; Computer Science</td>
<td>Lavender</td>
<td><img src="image" alt="Lavender" /></td>
<td>255, 133, 255</td>
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<tr>
<td>Health Professionals</td>
<td>Peach</td>
<td><img src="image" alt="Peach" /></td>
<td>255, 128, 77</td>
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<tr>
<td>Humanities</td>
<td>Canary</td>
<td><img src="image" alt="Canary" /></td>
<td>255, 255, 128</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>Brick Red</td>
<td><img src="image" alt="Brick Red" /></td>
<td>184, 21, 11</td>
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<tr>
<td>Math &amp; Physics</td>
<td>Mulberry</td>
<td><img src="image" alt="Mulberry" /></td>
<td>168, 25, 250</td>
</tr>
<tr>
<td>Medical Specialties</td>
<td>Red</td>
<td><img src="image" alt="Red" /></td>
<td>255, 0, 0</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>Yellow</td>
<td><img src="image" alt="Yellow" /></td>
<td>255, 255, 0</td>
</tr>
</tbody>
</table>
Fonts Specification

Please see the following image for information regarding fonts and sizes used on visualizations.