Pad++
This article discusses Pad++, which is a framework or development environment that provides functionality for easily creating data visualizations. The main feature of Pad++ (or at least what seems to be the main feature based on how it is emphasized by the authors – hard to say when I have not had the pleasure of using the program) is the zooming aspect of the program, which allows one to view data at whatever granularity that one desires. While having a framework that allows for easy data visualization and zooming may today seem like nothing special, I imagine that it was quite a useful tool for those few social visualizationists who needed a tool for creating their visualizations. After introducing Pad++ and explaining its primary purpose, the article moves on to discuss several different visualization that were implemented using Pad++.

The first of these visualizations is an html visualization. This visualization displays webpages (or any html document, really) as a set of thumbnails that, assuming that they are connected in a parent/child manner by a hyperlink, are connected by dashed lines. This allows not only for one to quickly and easily recall what webpages he has recently visited but also allows one to see the path that one has traveled to arrive and the current page and the relationship between the webpages along that path. The visualization itself seems, even by today’s standards, to be quite useful and would indeed help one find that ‘one page that had that one picture on it’. A major drawback of the visualization, however, is that it takes up most of the screen. When one wants to browse the internet and read the current webpage, this can be a somewhat large issue. However, I believe that having a view toggle to swap between a ‘normal’ and a ‘history’ view would be much better than the current ‘forward button’ and ‘back button’ approach.

The second visualization was the directory browser. This visualization displayed all of the directories in a given space in a grid-like layout, where each (filled) square in the grid corresponds to a directory in the space. Each of the grid squares is filled with a clustering of colored objects (and perhaps text depending on the level of zoom) that represent the amount and type of data found within the corresponding directory. While the visualization of data in a directory through color and shape is a sound one, I believe that the grid-like structure of the visualization is a poor analog to the actual tree-structure of a directory system and thus should not be used.

The last two visualizations were timeline and oval viewer. Of the two, I found timeline to be the more interesting and aesthetically pleasing (I was not even able to understand how oval viewer was meant to be interpreted). Timeline, as one might expect, displays time on a long
horizontal line. Atop this line sit many small bits of text corresponding to important headlines that appeared at the corresponding time represented by the position on the timeline. While somewhat simple, I believe that the visualization would encourage exploration and should thus (I believe) be considered ‘good’.

**Disney**

This article discusses the evolution of animation of the hand-drawn variety and how Walt Disney and his studio were able to create many of the ‘rules of animation’ used today. The author talks about eight (perhaps several fewer or several more depending on how they are counted) different rules of animation, explaining what effect the rule has on the scene and also how adding the effect has since changed the animation community as a whole.

The first of these rules is the stretch and squash rule. This rule basically states that, in order to convey movement and motion more clearly, an object should be stretched and squished in ways that, in the real world, would be impossible. Implementing this rule provides a character or setting with the ability to more easily express excitement and emotion and also makes the scene appear more lively.

The second technique that the author discusses is anticipation. The anticipation rule is a rule that explains that if an action is to be performed and if the animator would like to make sure that the audience can easily understand the actions of the animated characters, the action should be preceded by some other, anticipatory action. For example, if a character is about to run off the screen to the right, he should first shift his weight to the left. This technique will let the viewer know – in advance – what the character is about to do and thus will allow the viewer to, rather than wonder what is happening in the scene, follow the action of the animated scene quite easily.

The third (and potentially most important) rule is called staging. This rule basically instructs the animator to make apparent the emotion or idea that the scene should most strongly convey and to make less important everything else. That is, the animator should attempt to draw the viewers eye to the location where the most important action is taking place.

The author next moved on to discussing how Walt Disney made more ‘believable’ animations by having his artists use animation techniques based on physically correct motion. Flow and overlap, which relates to the non-simultaneous starting and stopping of every part of character’s body every time he decides to move. Additionally, the idea of slow in and slow out is discussed. Slow in and slow out is most useful in the pose-to-pose animation scheme in which several key frames are (very well) drawn, which are connected by a series of ‘in between frames’. By slowing in and slowing out, the picture was able to sit on the more well drawn
frames for longer, improving the overall animation. Additionally, motion arcs (rather than straight lines) were used for objects and characters alike to give them more of a sense of ‘correctness’.

Lastly, the author discussed exaggeration and appeal. Because characters cannot emote so well or so clearly as can a human, expressions (and basically everything), according to Walt Disney, needed to be exaggerated in order to be ‘believable’. Additionally, the author discusses crafting likeable characters by giving them a large amount of appeal. The author equated the appeal of an animated character to the charisma of an actor.