CREATIVE ASSIGNMENT 5
CORE METHODS IN EDUCATIONAL DATA MINING
PROFESSOR RYAN BAKER
VISUALIZATION
DUE NOON, MONDAY DECEMBER 15

EXCEPT FOR STUDENTS PRESENTING THAT DAY
WHO CAN TURN IT IN NOON, MONDAY DECEMBER 17

The goal of this assignment is to produce an interesting visualization, using any of the following authentic data sets assigned for previous assignments in this class:

- Basic 1, Creative 1, Creative 2, Basic 3, Basic 5, Basic 8, Creative 4

Note that assignments that used simulated data are missing. You can't use one of those.

You can develop the visualization using any tool you want, including Excel.

You have to use an "advanced visualization". The following visualizations don't qualify for this assignment: scatterplots, bar graphs, histograms, area graphs, box-and-whisker plots, and pie charts. Also, visualizations that simply express the results of another algorithm are also not acceptable: for example, visualizations of decision trees or neural networks, or dendograms showing the results of hierarchical agglomerative clustering, or a social network (especially for the social network assignment data!).

Finally, you should use a visualization that is not misleading: using 3D objects to represent 1D data is a classic example of this (if the quantity grows linearly, but the volume of the 3D object grows cubicly, that's a problem).

What does that leave? Lots of stuff: learning curves, moment-by-moment learning graphs, learnograms, activity radar graphs, wattle trees, heat maps, and so on. Being creative is fine for this assignment. (It is, after all, a creative assignment!)

Please turn in:

- The data set you used, if different than the original data set
- The visualization
- A document explaining how you completed the assignment
- An interpretation of what the visualization means

You will be graded on completeness and comprehensibility of your hand-in, whether you correctly and validly apply the method you chose to this data, and whether the methods you chose fit the requirements of this assignment.

BONUS: The student who succeeds in producing the visualization from which the “most interesting” valid interpretation can be made will receive the bonus. Please identify which interpretation you would like me to consider as most interesting for the bonus, and explain why it is interesting. (Hand-ins which do not do so will not be eligible for the bonus)