Visualization

Other Awesome EDM Visualizations
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- Not an exhaustive list
- For obvious reasons
Learnograms

- A graph that shows the change in one learning-related variable over time

- Concept and key examples from Arnon Hershkovitz
Learnogram

- (Schoenfeld, 1992)

**Fig. 3.** Time-line graph of a typical student attempt to solve a non-standard problem.

**Fig. 4.** Time-line graph of a mathematician working a difficult problem.
Learnogram

(Hershkovitz & Nachmias, 2009)
Collaborative Learning Learnogram

- (Martinez, Kay, & Yacef, 2011)
Activity Radar

(Kay, Maisonneuve, Yacef, & Reimann, 2006)
Gaze Plot

(Das, McEwan, & Douglas, 2008)
Spatial Usage Maps

(Borner & Penumarthy, 2003)
Lots of visualizations

- Goal: get information in a meaningful and quickly perceptible way to an analyst, learner, or instructor (or other stakeholder)

- Coolness will impress people
  - But the main question is – is it useful?
  - Useful to think about Tufte’s principles from first lecture
Next week

- Clustering and Factor Analysis