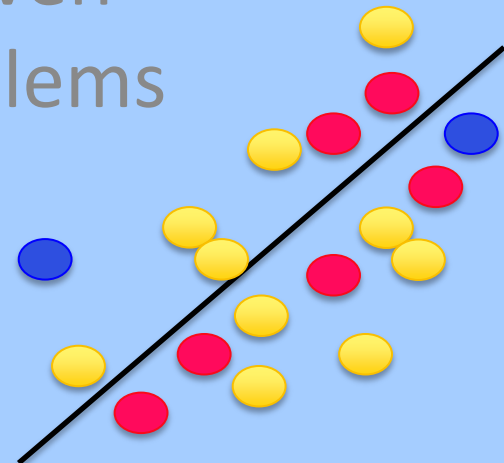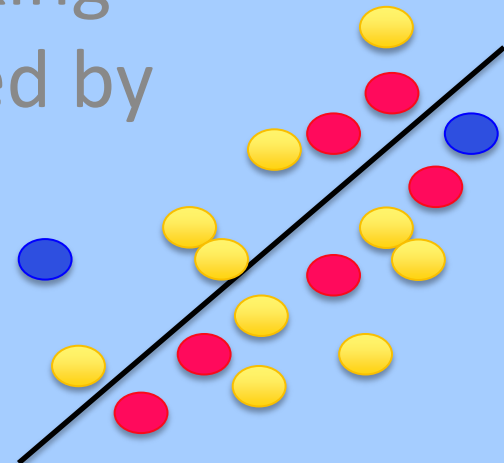# Data Visualization in Education Summit **#edvis**

- Good visualizations help make sense of data with great volume, velocity and variety.

- We define and extend the new science of visual analytics driven by real-world, real-scale problems of engaged partners.
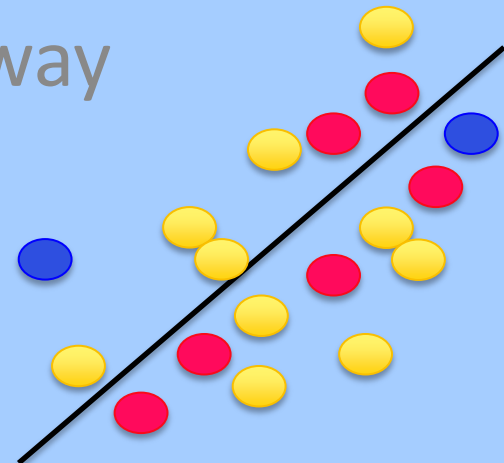
# Data Visualization in Education Summit **#edvis**

- Big Data not just about volume, but very rapid flow and large number of variables.

- Start with the problem that needs to be solved. Then begin looking at data and how it will be used by end user.
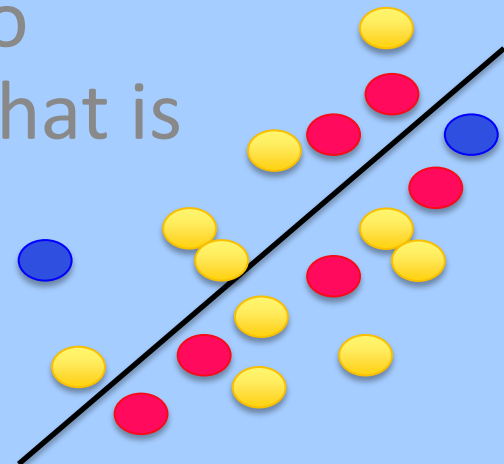
# Data Visualization in Education Summit **#edvis**

- Larry Johnson: not only do we need to create great science, we also need to create an awareness of why that is important.

- What's the purpose of higher ed - is it to prepare people for the workforce? Are we moving away from liberal arts education?
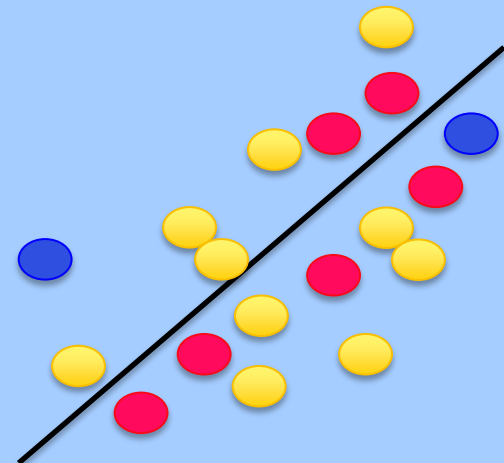
# Data Visualization in Education Summit **#edvis**

- The future's already here - it's just not very evenly distributed. - writer William Gibson (Think about this in terms of education and data.)

- Not only do we need to create great science, we also need to create an awareness of why that is important.
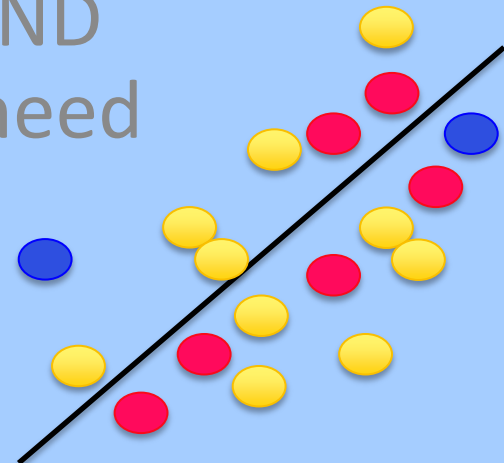
# Data Visualization in Education Summit #edvis

- Data visualization: need to balance human cognition and automated analysis. Interactivity is key.

- Big Data is not just about volume, but very rapid flow and large number of variables.
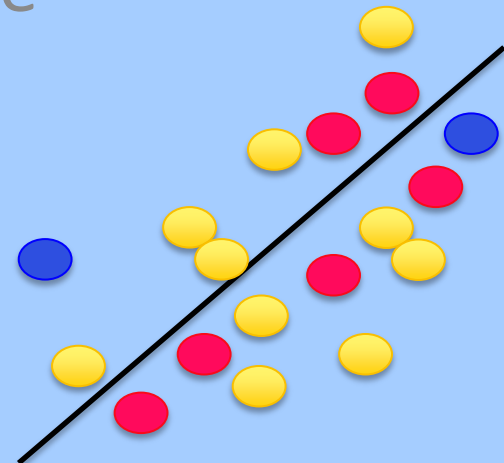
# Data Visualization in Education Summit **#edvis**

- The first step in trying to make a difference in education is to understand what the state of the art is, and go from there!

- You need the data that drives your choices to be really current AND available to the people who need it.
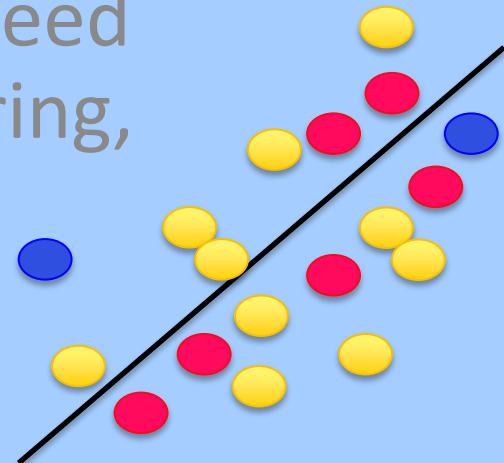
# Data Visualization in Education Summit **#edvis**

- Good point being made by UT provost - students don't care very much about the ways that administrators think about their education.

- Important point - what is the life cycle of a student - semester? graduation?  first career?  5th career?
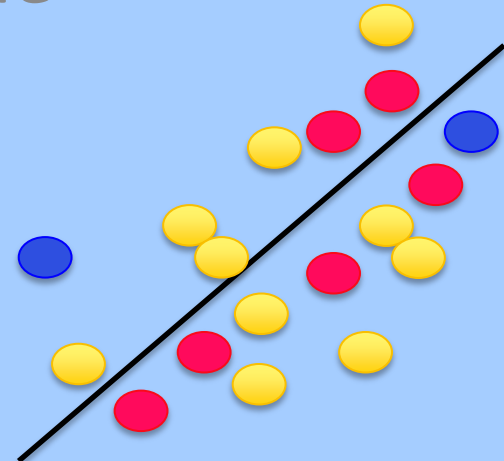
# Data Visualization in Education Summit **#edvis**

- Charles Thornburgh draws the parallel between the use of healthcare (preventative) medical data and education data for learning.
- Must get data to those that need it most, actionable, empowering, relevant!
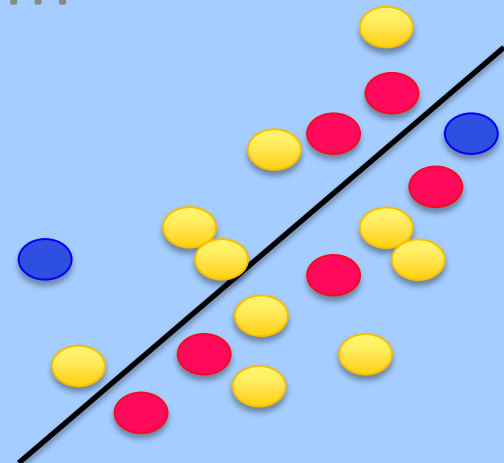
# Data Visualization in Education Summit **#edvis**

- We want our faculty to be able to train leaders of the future. Question degree plans, accountability, problems, etc.

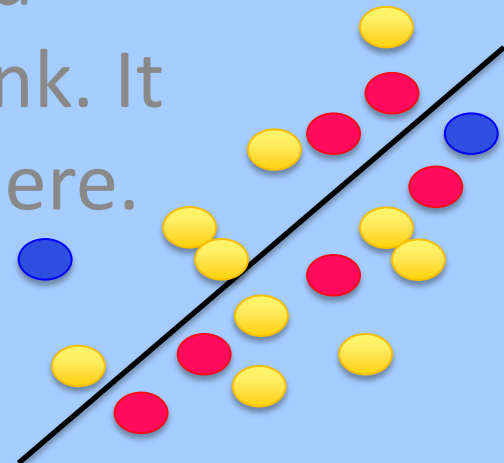- You have to get the data to the front lines.

# Data Visualization in Education Summit #edvis

- Data will never replace experience and intuition. Rather, it's an augmentation.

- When you visualize data you bring it to life and put it in story form - this is how people want to consume it.
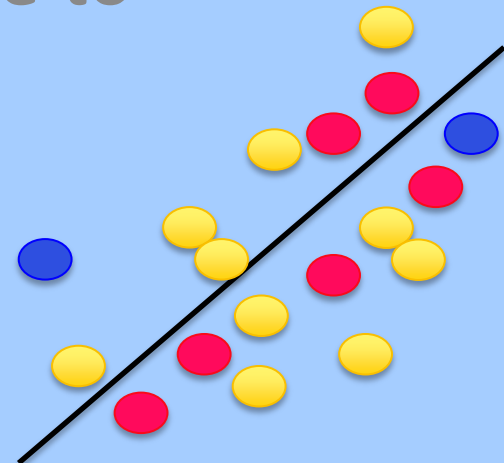
# Data Visualization in Education Summit #edvis

- When you put maps and visual representations up, they hit a different part of the brain. People respond to that.

- Your audience can understand much more than you may think. It is all in how you lead them there.
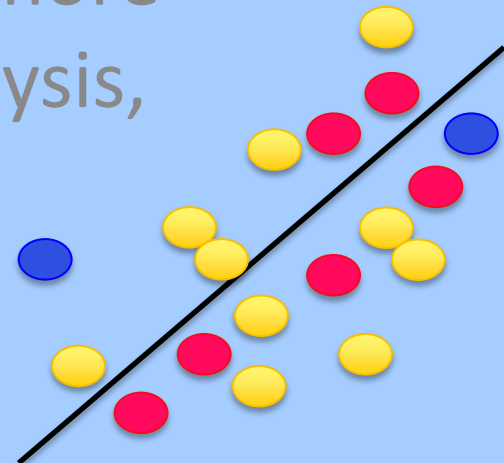
# Data Visualization in Education Summit #edvis

- Education is littered with data plots without context. Plots need to be placed within the context of the community and literature!

- In education, we are fortunate to have such smart audiences.

# Data Visualization in Education Summit **#edvis**

- Chris Dede "Virtual worlds are the richest source of data about online learning." Agreed  :-)

- Immersive environments sound great. Means I have to learn more about text analysis, path analysis, and unstructured data.

# Data Visualization in Education Summit #edvis

- 3 barriers to consumption/use of educational data: data is silo'd; lack of training in teacher prep programs; lack of time.

- Teachers are often disconnected from the student outcome data gathered in blended learning tools.