In your own words, explain three principles of effective data communication from the lecture material.

Easy to read – The data is easily read and nut cluttered

Purposeful – The goal is easily decipher by looking at it

Beginner Friendly – Can be read by any person

Order - arrangement of visual elements

Hierarchy – relative importance of different visual elements

Relationship is the connection between different visual elements.

Convention is the like standard, like red in stocks means losses and green means gains. It’s a known association.

It will help me avoid issues with the readability of my data visualizations and make them more direct.

Given the scenarios below, write which graph would be best to use for the data and what makes it an effective choice:

* Comparison between values

Bar graph, clearly shows comparisons

* Comparison to the whole

I would say pie, even tho he didn’t like them I can show the reader of my graph a basic comparison to the whole data.

* Change over time

Line graphs, shows progression

* Ranking data

Bar graph, celary shows rank

* Correlation

Scatter plot. Our minds can automatically see a correlation in scatter plots.

* Geographical charts

Map, this is because we see the map basically

* Measuring a target

A bar graph or gauge or just a number. all of them show a progress to a targer

* Showing Outliers

Box plot or scatter. Shows outliers easily

This would help me shows the best graph for each situation.

“It is easy to lie with statistics. It is hard to tell the truth without it.” - Andrejs Dunkels

I think it means graphs can be easily used to mislead people of the truth but without it there is no way to make decisions

Misleading grpahs can be political (messing with axis to show favor to one party rather than other), economical (messing with y axis start to magnify gains), marketing (can be used tomake a brand seem much better than anoterh by using oversized icons as points).

Axis should not be changed to skew visualization. Axis should start at 0. Icons can be used but carefully and should be relative to all other icons.

PART 5

1. Excessive use of visual elements.
2. Title, Axis labels, data pints, legends
3. Removing unnecessary elements and focusing on key elements. not overusing color in wrong places, not messing with axis to skew results.
4. Color can be used to show the feeling in the graph for example. If it’s a finance team doing a graph and they use green, it symbolizes gains as opposed to red (which is loss)