INFS 5116 – DATA VISUALISATION

Workshop Week 9

Quiz

Kahoot quiz on design principles

Lessons in storytelling

Mini-lecture

Scenarios for group work

1. Recall the scenario where we have analysed customer feedback for an app. The primary metric of interest was Net Promoter Score (NPS), which was tracked over time and compared to a set of competitors' scores. There was also some written customer feedback categorised into themes.

    Key points from analysing the data were as follows:

    *   While NPS has generally increased over time, underlying feedback has become increasingly polarized, with both promoter and detractor populations increasing as a proportion of the total over time.
    *   Analysis of detractor comments indicates a theme of concerns over latency and speed.

    You would like to highlight these findings and use them to recommend giving priority to latency improvements for the app.

    Review the graphs shown below and then do the following:

    (a) Formulate your 'big idea' for this situation. It should be a sentence that articulates your point of view and conveys what's at stake for your product.
    (b) Have a closer look at the graphs. Write a sentence or two about each graph that describes the primary takeaway message from that graph.
    (c) Based on your answers to parts (a) and (b), brainstorm which graphs you would include and create a brief outline of your story. ***How would you structure your narrative?***
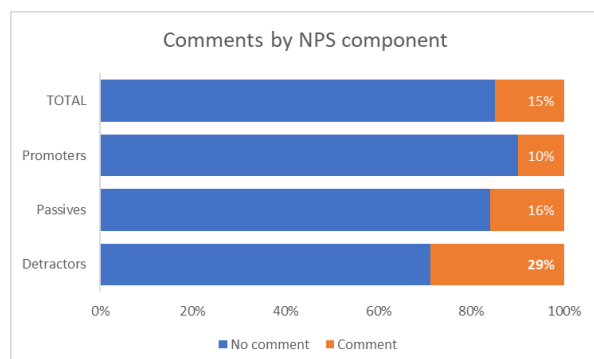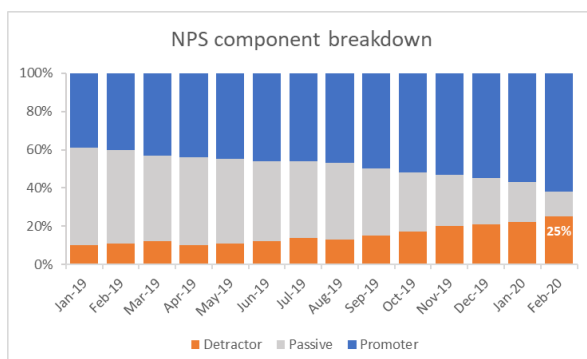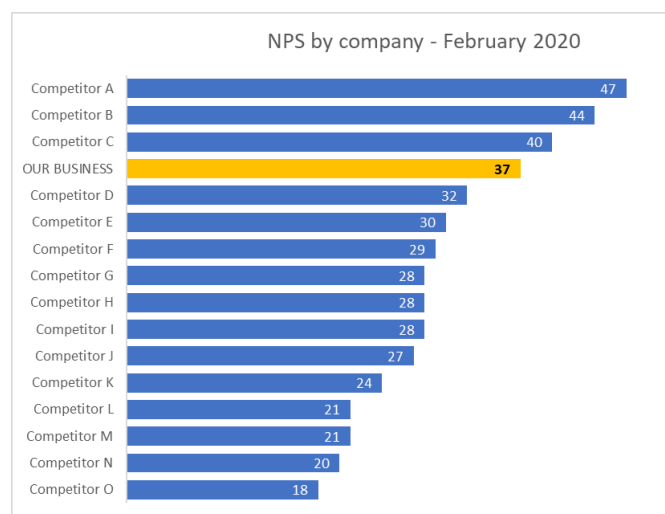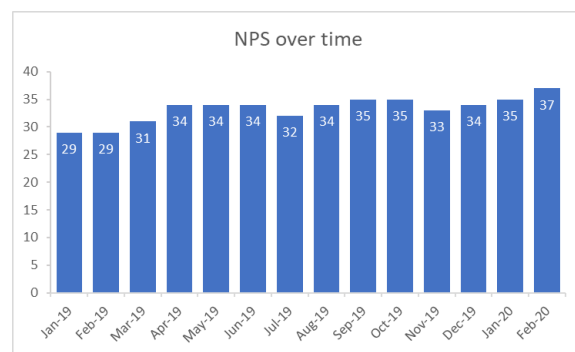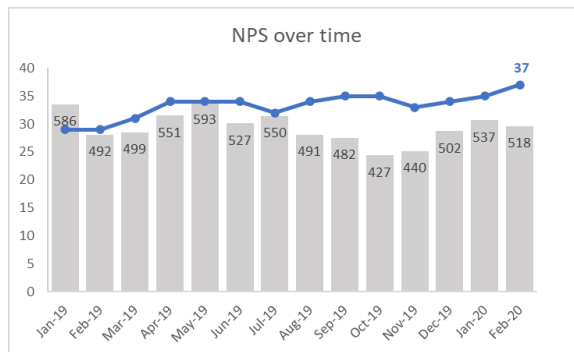
2. **What's the story?** Examine the graphics shown below. Formulate your 'big idea' for each situation. It should be a sentence that articulates your point of view and conveys insights from the graphic.

Graphic 1

Which jobs were most and least at risk of being affected by AI? The Indeed researchers looked at the 25 most common jobs posted on Indeed over the period — which accounted for 22% of the platform's total job postings — and compiled the percentage of skills for each role that, per their analysis, ChatGPT could perform at excellent, good, fair, and poor levels.

High-Demand Jobs Least Exposed to GenAI Change

Top 25 Occupations Account for 22% of Job Postings on Indeed,
Evaluation of Skills in Indeed Job Postings, United States, Aug '22 - Jul '23

Legend: ■ Poor ■ Fair ■ Good ■ Excellent

Categories (top to bottom):
truck driver, caregiver, cook, server, registered nurse, licensed practical nurse, nursing assistant, restaurant manager, maintenance technician, store manager, housekeeper, shift manager, assistant manager, assistant store manager, general manager, delivery driver, cashier, medical assistant, retail sales associate, shift leader, sales representative, technician, sales associate, customer service representative, administrative assistant

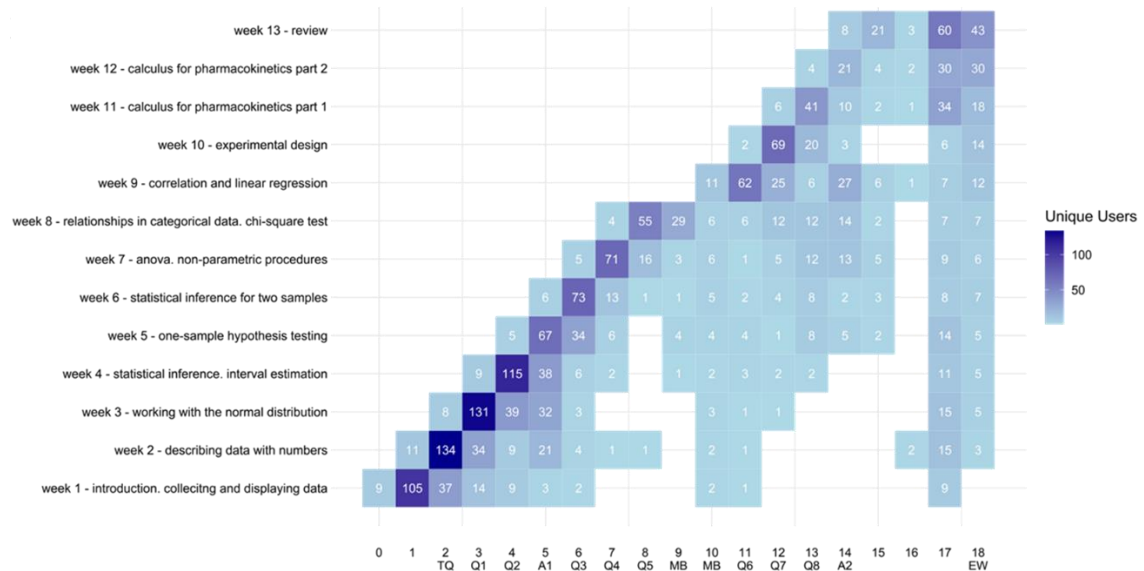Callout: Poor or fair GenAI rating in the average job posting on Indeed

indeed

Graphic 2

How do students engage with content videos in a first-year 'quantitative methods' course for health sciences students?

Q1, Q2 etc refer to weekly quizzes, A1 and A2 are two major assignments and EW stands for exam week.

Graphic 3

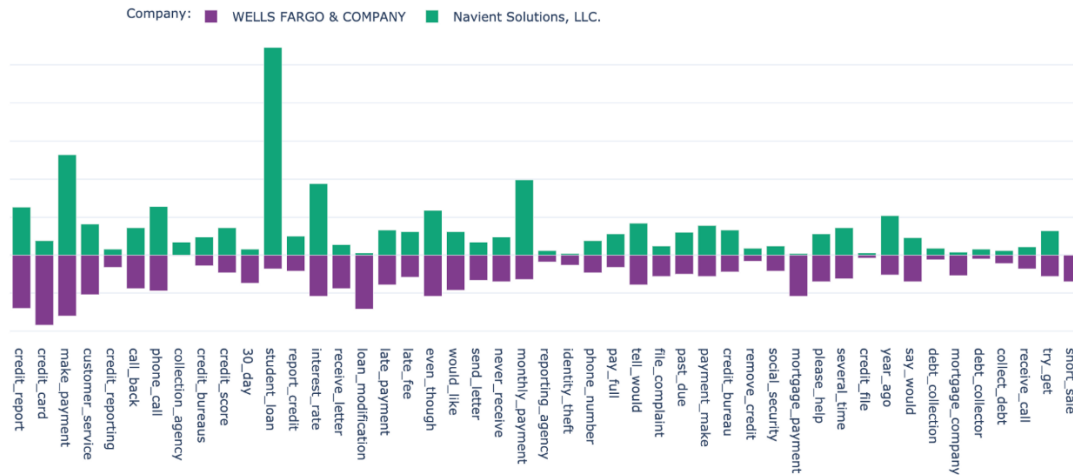What do bank customers complain about?

Source: https://medium.com/plotly/nlp-visualisations-for-clear-immediate-insights-into-text-data-and-outputs-9ebfab168d5b

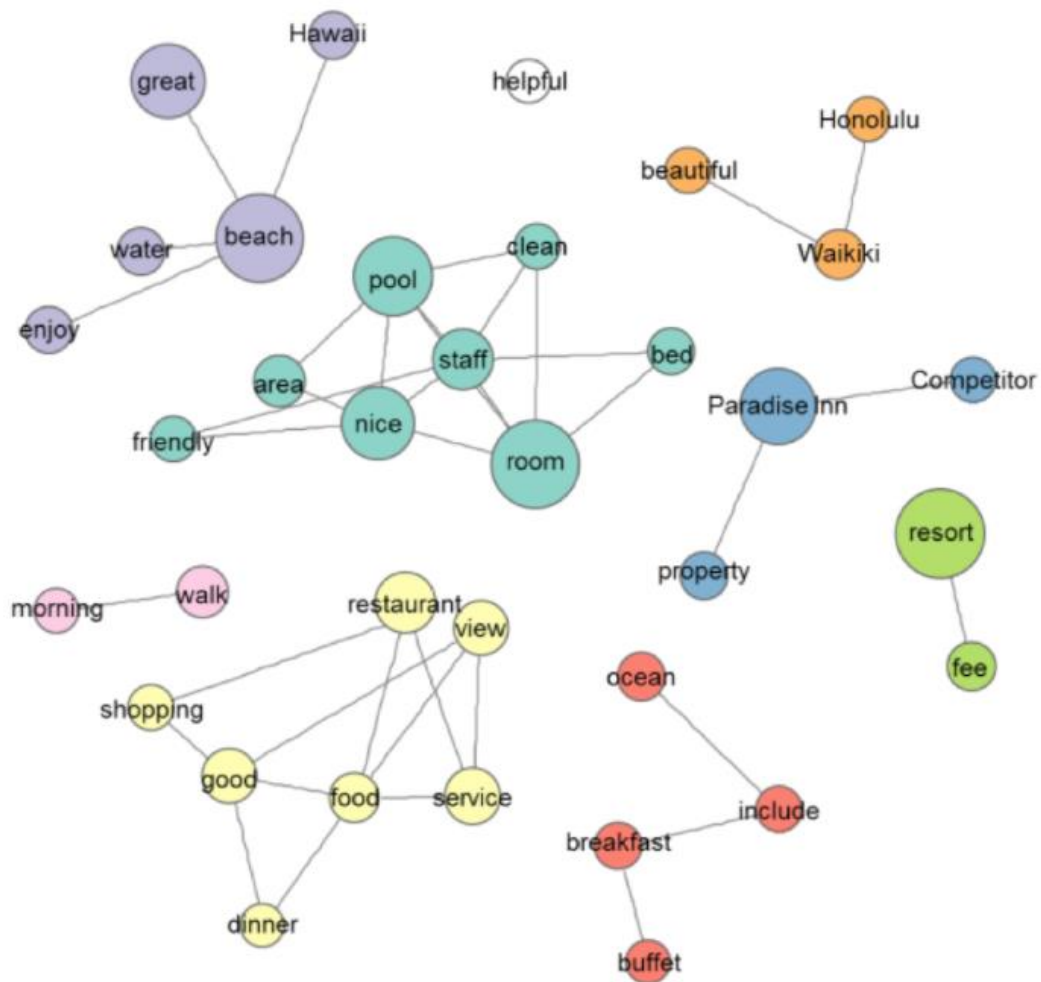

Comparision: Navient Solutions, LLC. | WELLS FARGO & COMPANY

Graphic 4

What do customers talk about in reviews for a resort hotel in Hawaii, located near Waikiki beach?
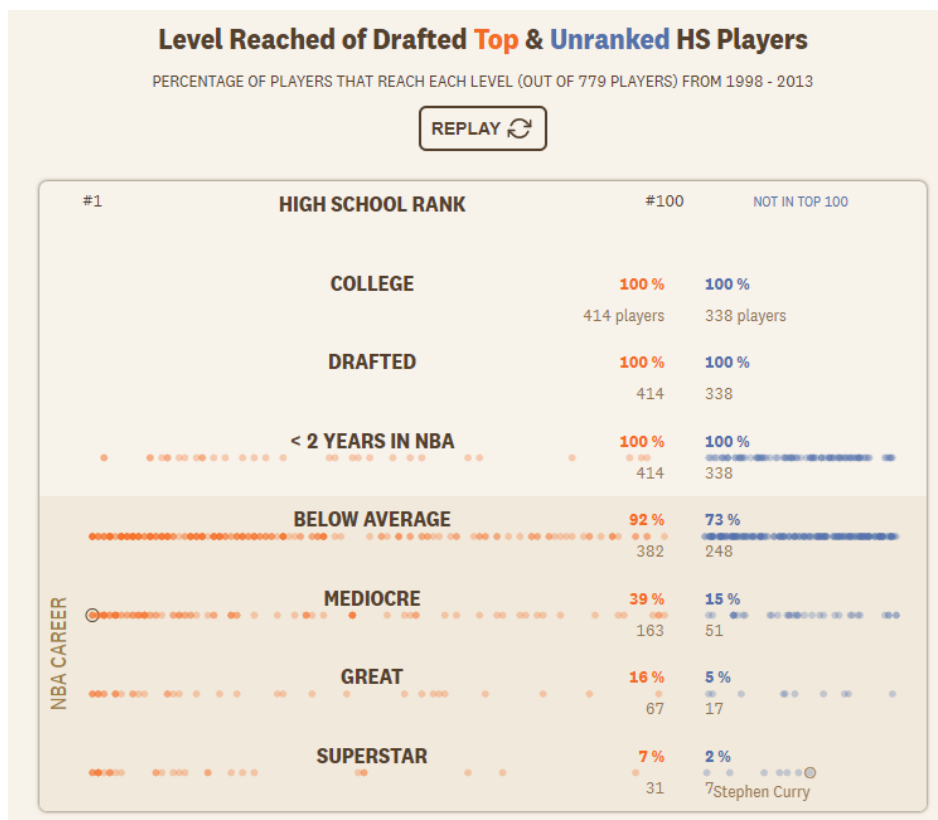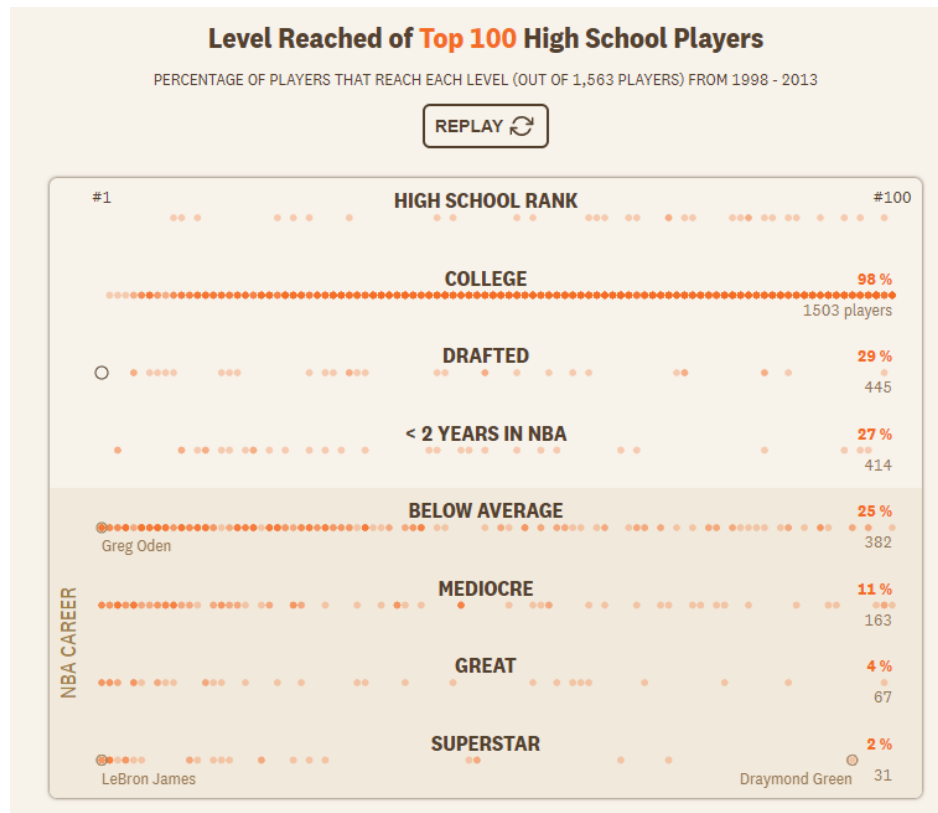Source: https://uxmag.com/articles/text-analytics-for-everyone

Graphic Set 5

What happens to talented high school basketball players?

Source: https://pudding.cool/2019/03/hype/

Level Reached of Top 100 High School Players

PERCENTAGE OF PLAYERS THAT REACH EACH LEVEL (OUT OF 1,563 PLAYERS) FROM 1998 - 2013

REPLAY ⟳

HIGH SCHOOL RANK		
#1		#100
COLLEGE	98 %	1503 players
DRAFTED	29 %	445
< 2 YEARS IN NBA	27 %	414
BELOW AVERAGE (Greg Oden)	25 %	382
MEDIOCRE	11 %	163
GREAT	4 %	67
SUPERSTAR (LeBron James ... Draymond Green)	2 %	31

NBA CAREER

Level Reached of Drafted Top & Unranked HS Players

PERCENTAGE OF PLAYERS THAT REACH EACH LEVEL (OUT OF 779 PLAYERS) FROM 1998 - 2013

REPLAY ⟳

HIGH SCHOOL RANK			NOT IN TOP 100
#1		#100	
COLLEGE	100 % (414 players)	100 % (338 players)	
DRAFTED	100 % (414)	100 % (338)	
< 2 YEARS IN NBA	100 % (414)	100 % (338)	
BELOW AVERAGE	92 % (382)	73 % (248)	
MEDIOCRE	39 % (163)	15 % (51)	
GREAT	16 % (67)	5 % (17)	
SUPERSTAR	7 % (31)	2 % (Stephen Curry)	

NBA CAREER

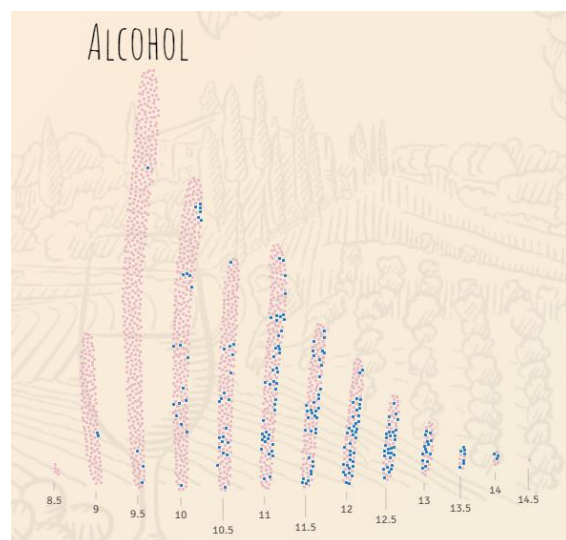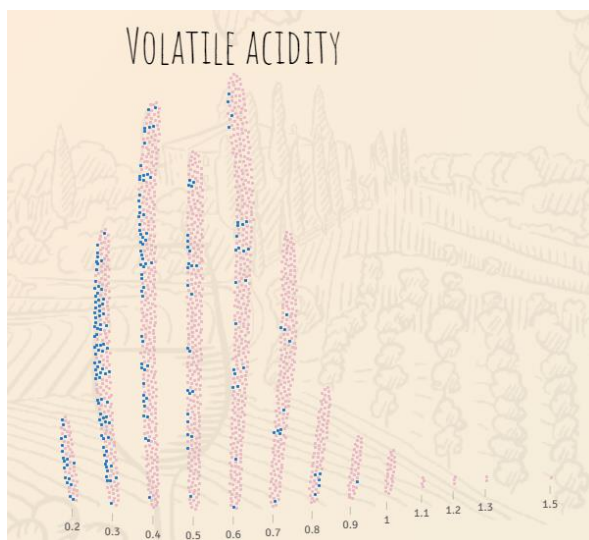**Graphic Set 6**

Source: https://pudding.cool/2021/03/wine-model/

wines of **lower quality** (anything rated below 7) and wines of **high quality** (wines rated 7 and above).

Note, how the majority of medium quality wines mingle in the centre. As such, **"high-quality"** for this dataset really does mean good from the assessors perspective, while **"low-quality"** includes truly low-quality wines as well as average wines resulting in a proportionally larger class.

Models don't particularly like this imbalance and we would typically counter this with helpful techniques; but we'll keep it simple here.

Graphic Set 7

The following data are Google trend scores based on global searches. They're rated 1-100. Source: https://rhythm-of-food.net

RHUBARB

MARGARITA

Or July 4th, for that matter?

Who wouldn't want a margarita to celebrate Cinco de Mayo?

Easter / Passover

BARBECUE SAUCE

You can't start the summer without a barbecue on Memorial Day, and you can't have a barbecue without the sauce.

KALE

KALE (GERMANY)

Kale (Grünkohl) is a traditional vegetable in Northern Germany.

KALE (JAPAN)

Thanksgiving

New Year

Easter / Passover