IDEAS

- Line chart

Production / years

- Radar chart

Maize, Potatoes, wheat, Oats, Barley

- Treemap

Oats, Barley, Potatoes, Maize

- Bar chart

Production / Commodity

- Scatter plot

Production / Hectares

- Choropleth

- Sankey diagram

Agriculture / Sale to consumers

- Area chart

- Boxplot

Production / Commodity

- Sunburst diagram

Dairy, Meat, Livestock
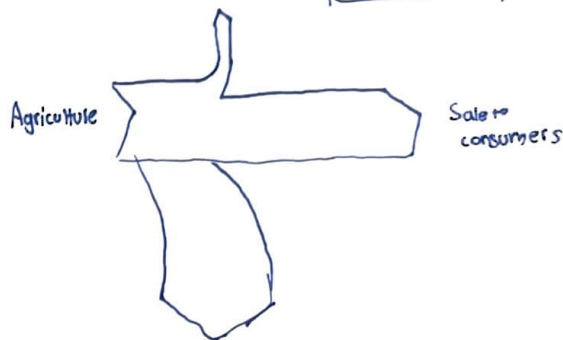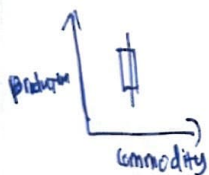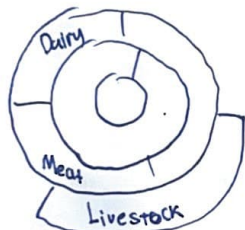
FILTER

- Radar chart
- Choropleth
- Scatter plot
- Line plot
- Bar chart
- Area chart.

CATEGORIZE

Trends
- 1 variable
- 2 variables

1 variable:
- Choropleth
- Scatter
- Line chart

2 variables:
- Radar

>2 variable:
- Bar chart
- Scatter
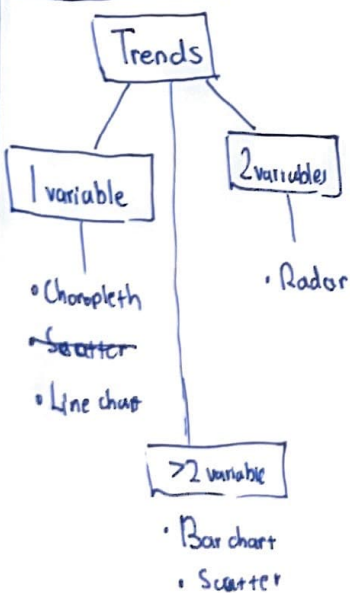
COMBINE & REFINE

- Bubble chart

Production / Commodity
- Size is hectares
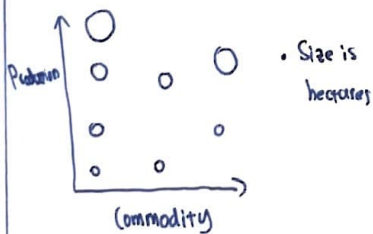
- Radar chart comparing 2 regions

- Bubble map
- Symbol map
- Density heat map

Questions

1. Other then trends what else can I show to the audience

2. How can I select visualisations based on target audience
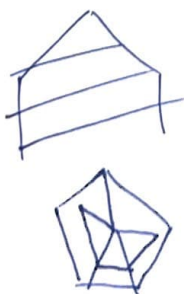
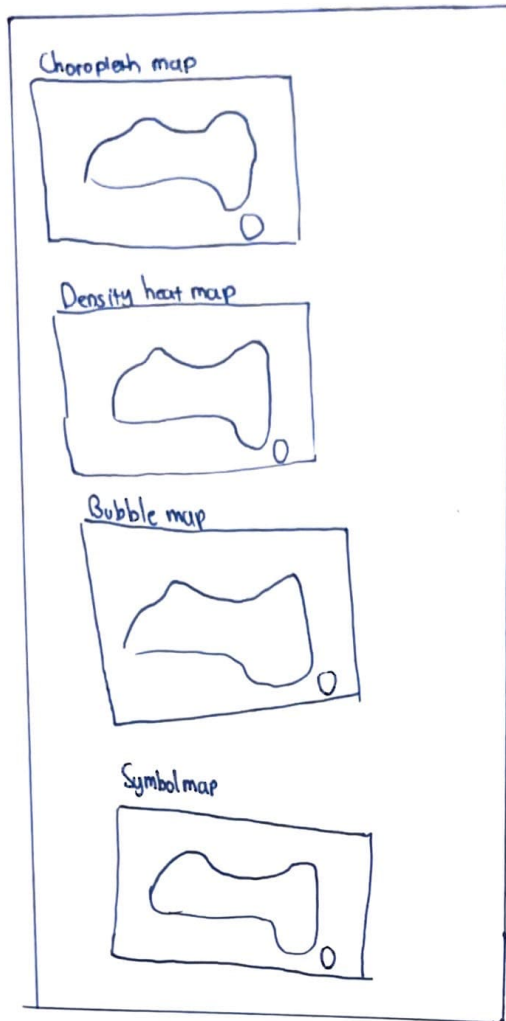3. How can I balance complex charts and ease to read

Author: Jerome Tan

Date: 10/10/2024

Sheet: 1

Task: Planning Visualisations.

LAYOUT

Choropleth map

Density heat map

Bubble map

Symbol map

OPERATION

○ For all maps we have two interactions
- Commodities as a dropdown bar
- Year, slider to select year to view.

Barley ∨

○————○——————————○
1920   2022

FOCUS

• Choropleth map
  Display state by state differences in arg agricultural production

○ Density Heatmap
  Show concentration of farming activities, highlighting regions with the most farming areas or highest production density

○ Bubble map.
  Visualise the total hectares under cultivation in each State using bubbles

○ Symbol map
 Use symbols to show production output

DISCUSSION

○ Highlights geographical trends and production hot spots, allowing users to compare regions visually.

○ Different map types provide various perspectives on the data, encouraging exploration and deeper understanding

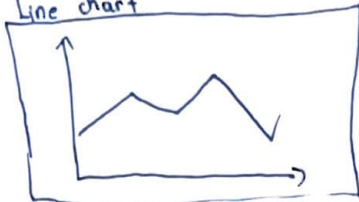○ Bubble map adds a layer on choropleth incorporating scale of farming areas.
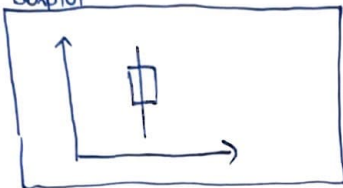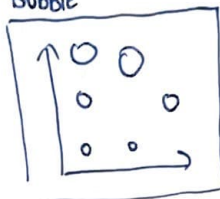
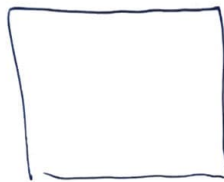# LAYOUT

Choropleth map
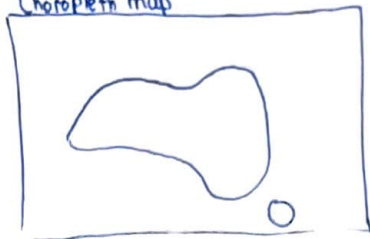
text
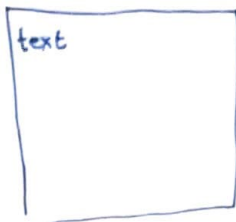
Line chart

text

Boxplot

Bubble

Area chart

OPERATION

- Time slider for year selection

- Selection of commodity using a drop-down box
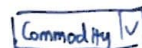
  | Commodity ∨ |

FOCUS

○ Choropleth
  - Display state by state agricultural production

○ Line chart
  - Track trends in commodity production over time Showing how production changes over time

○ Boxplot
  - Illustrates variation in production values across states and over time highlighting outliers

○ Area Chart
  - Use stacked areas to show cumulative contributions of various commodities to total production.

○ Bubble
  - Explore relationship between commodity & hectares over time.
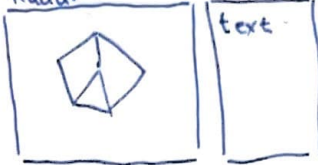
DISCUSSION

- Time-series charts ideal for showing how agricultural production evolves over time.

○ Lack of complex charts when building the layout focussed on time series.

○ The different charts provide complementary ways to view changes in production.

LAYOUT

Choropleth

Radar

text

Sankey

Scatter plot matrix

OPERATION

- Clicking on nodes of Sankey diagram
  - Show detailed flows related to node.

- Region / State selection
  - Using drop down box

- Date selection
 - using a slider to select year

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FOCUS

- Radar chart
  - Compares multiple agricultural metrics across states.

- Sankey diagram
  - Visualises the flow of commodities, such as from production regions to markets or export destinations.

- Scatter Plot Matrix
 - Allows for the exploration of relationships between multiple variables

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DISCUSSION

- Help audience understand connections depedencies and relationships

- Good use of complex charts with large amounts of information and relationships to draw, More text to be used to explain

- Compare & contrast between States as well as factors affecting production of agriculture.
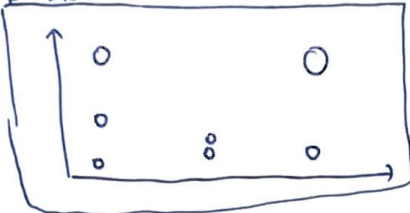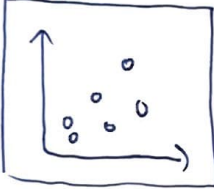
LAYOUT

Choropleth
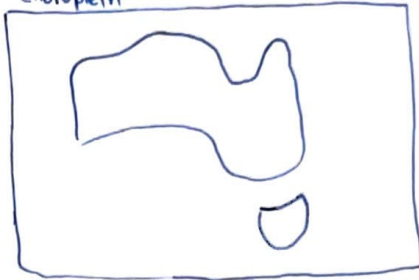
Radar
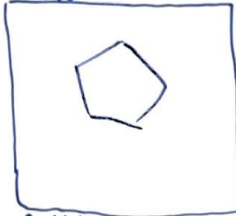
text

Bubble

text

Scatter

text

OPERATIONS

- Selection of commodities
  - Use a dropdown box

- Selection of Regions/States
  - Use a dropdown box

- Selection of Years
  - Use a slider

FOCUS

- Choropleth map
  - Shows agricultural production on different commodities over time, between all the states of Australia

- Radar Chart
  - Compares between 2 Regions/States, the production of each commodity

- Bubble chart
  - Shows relationship between production & land use for agriculture over time

- Line
  - Shows the general trend of agriculture production over time

- Scatter
  - Draw relationships between land use & production over time

DISCUSSION

- Balance of both complex and simple charts.

- Balance of information being conveyed showing both trends, relationships, and allows for comparisons

- Interactivity for each visualisation helps to connect visualisations so that audience can gain a deeper insight.