

Ideas

Scatter Plot

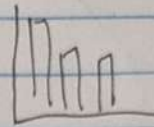
Year vs landslide occurrences

Landslide Data

Line Graph

- landlides over-time
- line graph showing landslide changes across different states

Bar charts



- Amount across different states/ occurrences

Pie chart



Landslide category proportions / triggers

Heat maps

- visualise concentration of landslide event across different times of the year

Tree map



Visualise proportion of different landslide types

Bubble chart

- compare amount of different triggers
- visualise relationship between triggers & categories

Geographic map -

- show distribution of landslide event,
- dots to show size

Filter

Either pie, bubble or treemap to show proportion amongst for different categories of landslides

- line chart to show trend over time

- Map to show distribution of landslide events

Categories

Trends over time: line graph

Maps. → Global
→ State

Bar chart: show amount

Bubble chart: show type & trigger & frequency count

Combine & Refine

- Line & Bar chart

↳ Stacked bar chart for state

- bubble chart: trigger, category & frequency count

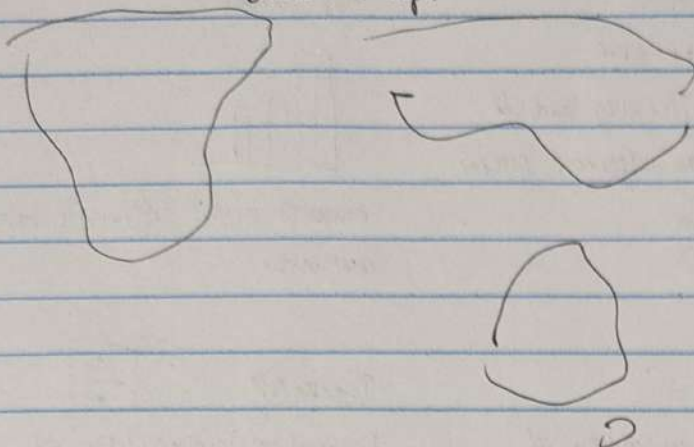
Global-Map: show distribution

State Map: focus in Australia include landslide size.

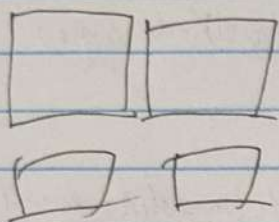
Sheet 2 Initial Design 2 - Global distribution, category & change over time.

Kien Zhang
3/10/2024

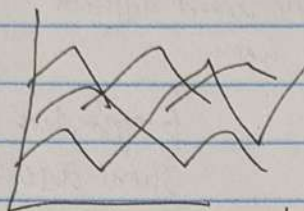
Global Map.



- Understand change of
landslide over time



Tree map to visualise
regions



line chart to show
change over time for
Australia

Focus

- Understand distribution
- Visualise categories of landslide
- View distribution of landslides over time via line graph

Pros

Allow clearer view of distribution of landslide across categories & change over time

Components / operations

- Year filter for map.
- select function to focus on specific countries.

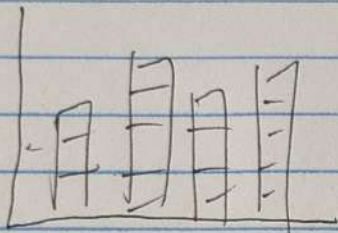
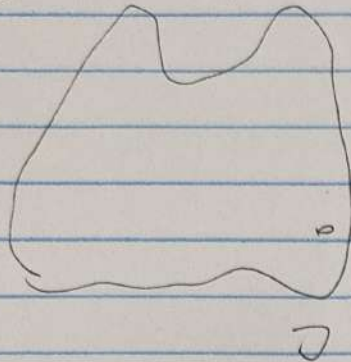
Cons:

- line chart will get too complex / squashed together as there is a lot of countries
- Bubble chart may not be the best way to display categories as it is not as easy to read
- Does not show landslide magnitude

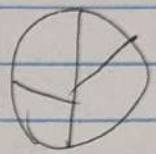
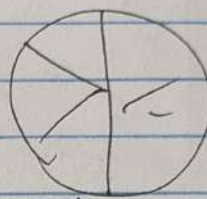
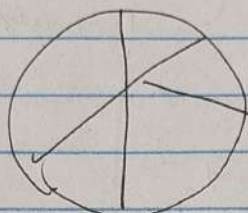
Sheet 3 - Design 2

Australia Map

Janen Thoms
31/10/2024



stacked bar chart
to show change
over time



pie charts to show
landslide category, setting & trigger

Components / Operations

- select filter: highlight selected states
- filter for specific years
- hover: display tooltip & give more information

pros

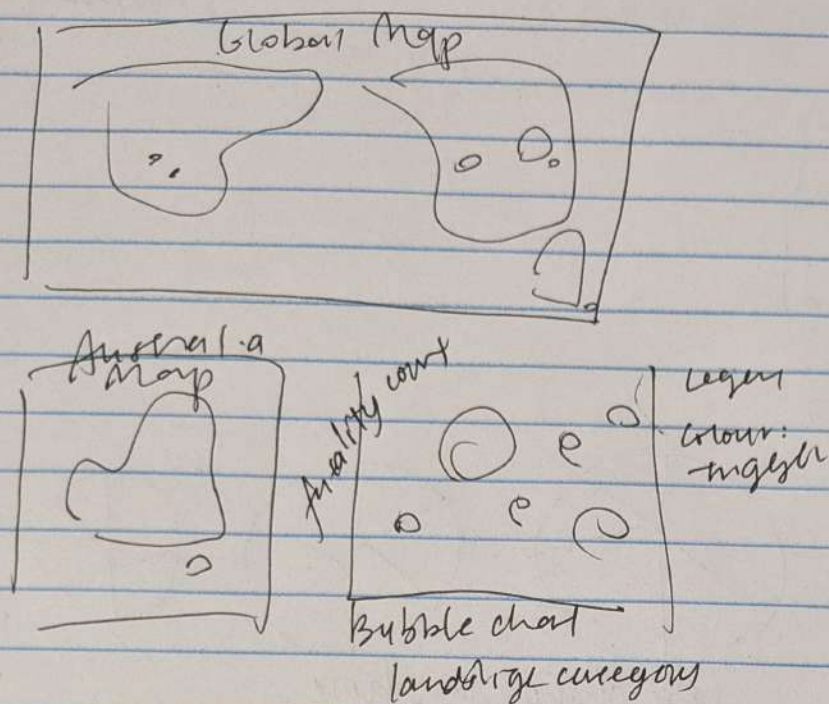
- Easier view of state distribution
- Straight forward view of categories, settings & trigger

Tools

- Allows focus on Australia & its states
- Can see distribution of state trends through stacked bar chart
- Shows how prevalent landslides are in different areas

cons:

- Does not show correlation between category, setting & trigger
- Does not account for global distribution



Focus:

- Allows to narrow distribution for both global & state maps
- The global map can vary size of dots based on landslide size
- Bubble chart allows easier view of correlation between landslide size, count trigger & fatality count

Pros

- Allow to see relationships between trigger, category & fatality count through bubble chart
- Zoom feature allows easier view of maps

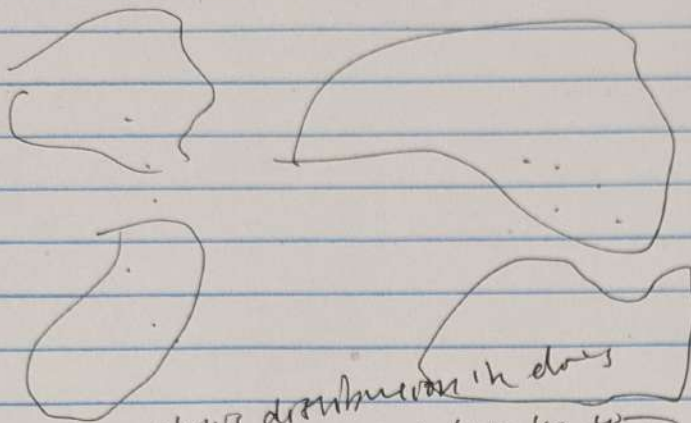
Components & operation

- Include zoom filter to easier identify if map is too dense
- landslide size filter
- Category filter
- Year filter
- Select filter to focus on particular region

Cons

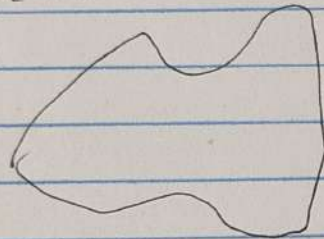
- No timeline
- Showing landslide size on global map may cause it to be too cluttered.

Global & Australian Landslide Events



- shows distribution in dots
- circles scaled uniformly so
even focus remains on location
of landslide rather than
size or density
emphasizes geographic location

Australia state
map



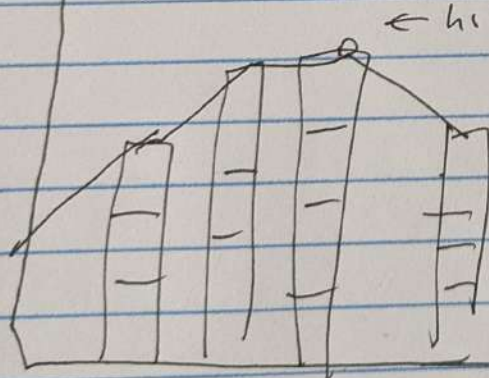
landslide size
○ ○ ○ ○

state

colour

- Shows state distribution and scale across size

Line + Stacked bar chart



← highlight
most recent
year.

state

colour

filter

- max year

- select state

Category, Integer size
bar chart bubble chart

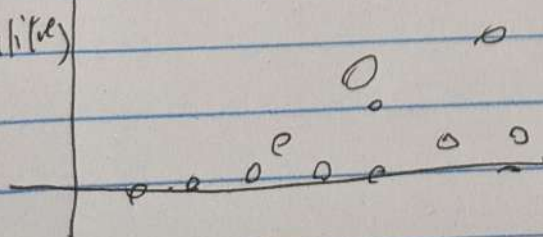
Trigger

colour

Size

○ ○ ○ ○

Fatality



Focus:

- Can focus on Global & Australian distributions
- Can focus on different states in Australia & on landslide size
- Allows comparison of event occurrence amount of across states & distribution over time

Components:

Hover: Tool tips with additional event information

- Select filter for states for Australia Map & Bar chart

- Filter for year, landslide size, category, trigger, maximum fatality

- Zoom for both Map

Details:

Made using Vega lite

& HTML

It can create different charts & interactivity padding.