Assignment3
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Selected bad example:

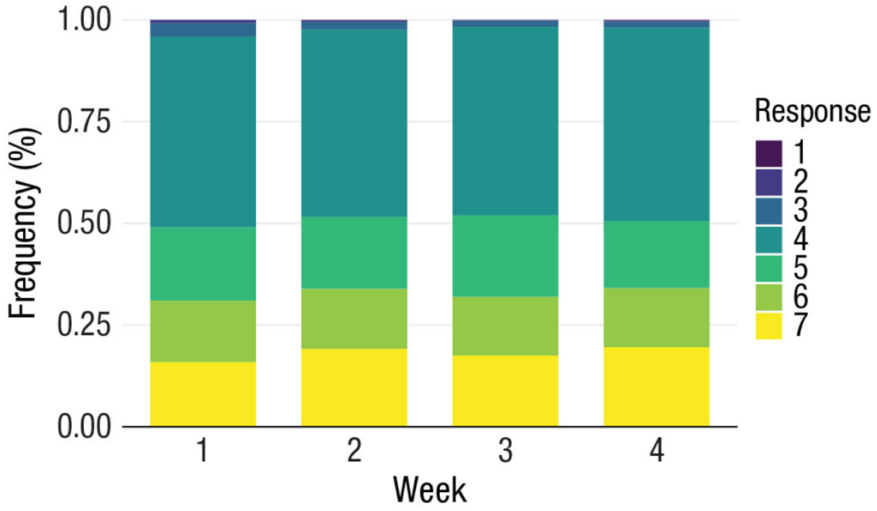

Fig. 1. Frequency (%) of responses on a Likert-type item scaled from 1 to 7 in which observations collected across four time points are compared.
Reference: https://journals.sagepub.com/doi/full/10.1177/25152459211045334

The stacked bar chart provided visualizes the frequency of various responses over a four-week period. However, this visualization might present accessibility and equity issues due to the following:
Accessibility: The colors chosen for different responses might not be distinguishable for individuals with color vision deficiencies. Adding patterns or textures to the colors could improve accessibility. Moreover, the lack of alternative text for the chart elements makes it inaccessible to people using screen readers.
Reproducibility: The data has been open-sourced and thus the figure is reproducible.
Equity: The legend is not comprehensive enough, which might not provide equity in understanding the data across various audiences with different levels of expertise. Ensuring that explanations are clear and comprehensible to non-expert audiences can promote equity.
To improve the visualization, I would suggest using a color-blind friendly palette, including descriptive labels for the image, and high contrast between text and background (Accessibility). Also, simplifying the design to communicate the essential information without assuming prior knowledge will help the equity.

Selected good example:

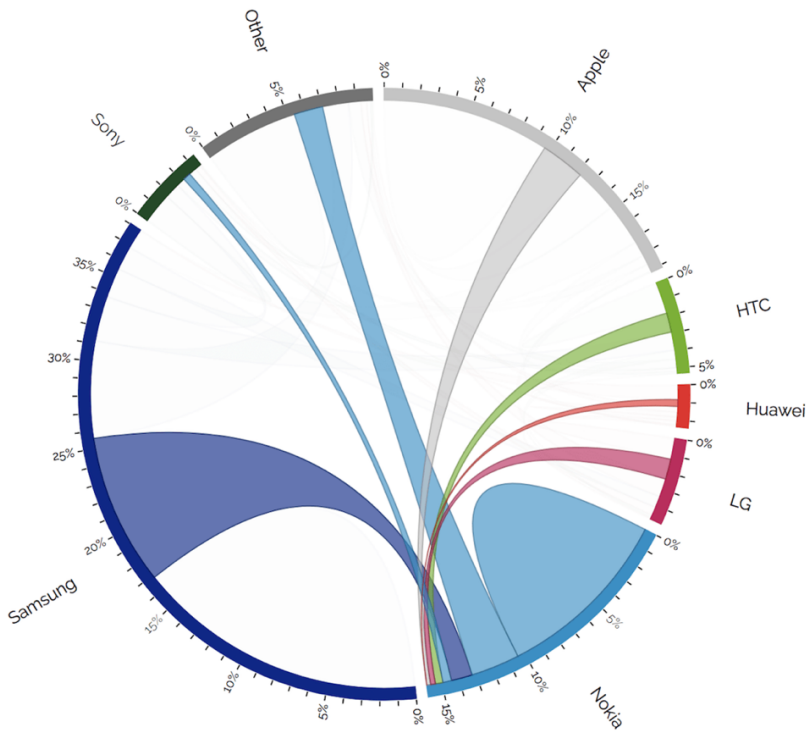

Fig. 2. Switching between phone brands
Reference: https://www.dataviz-inspiration.com

The chord diagram presented appears to visualize the market share and migrations of users from a brand to another for smartphone manufacturers. However, the visualization has accessibility, reproducibility, and equity challenges:
Accessibility: The diagram uses color differentiation without alternative indicators, which can be challenging for color-blind individuals. Additionally, the curved lines might be difficult to follow, and the small text may be hard to read, especially for visually impaired users.
Reproducibility: It is not clear if the data sources, collection methods, or tools used to generate the diagram are documented, which is crucial for reproducibility. Without this information, it is impossible to recreate or validate the figure.
Equity: The complexity of a chord diagram can make it less equitable for those unfamiliar with such visualizations. The overlapping lines and lack of clear labeling may confuse readers who are not data-savvy.
My suggestions for improving the figure include the followings:

1. **Accessibility**:
    - Implement a color palette that accommodates color vision deficiencies.
    - Include clear labels and a legend that can be understood without relying on color.
    - Provide descriptive text or audio descriptions for the data.

2. **Reproducibility**:
    - Clearly state the data source and the methodology for data collection and visualization.
    - Include the raw data or access to it, if possible, and any scripts or tools used in the creation of the diagram.
3. **Equity**:
    - Simplify the design to convey the key message more clearly.
    - Offer alternative formats, such as a table or a simplified bar graph, that might be more easily understood by a broader audience.