FINAL PROJECT: FAMILY TREE VISUALIZATION

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Motivation

- People have an interest in their family trees
- Many different types of family trees exist today
- Problem: Temporal Data
  - Very few, if any, family trees address the issue of visualizing temporal data (i.e. age differences between nodes)
- Solution: Our family tree is designed to show temporal data, based on the layout we provide as well as the interactivity features

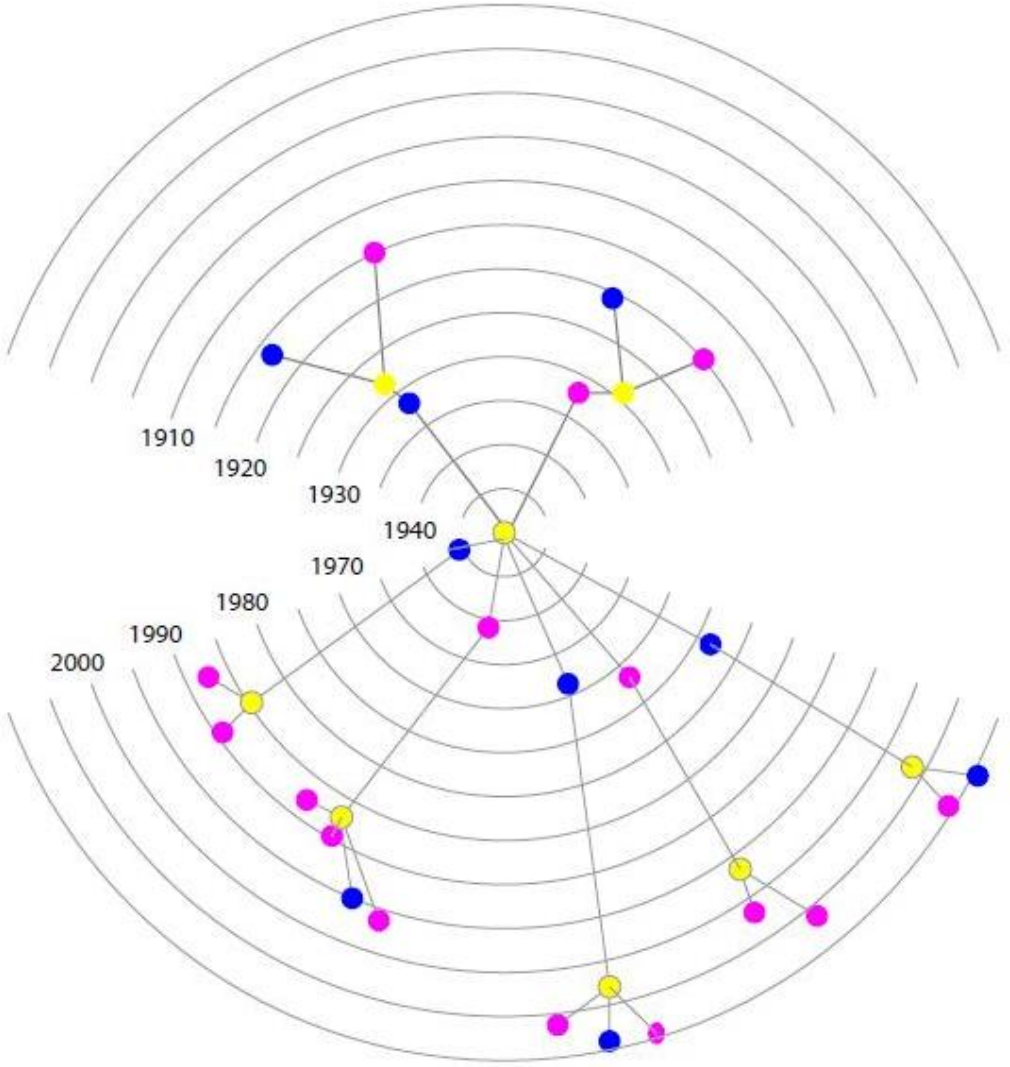
Features We Implemented

- Layout
  - Conical shape
  - Reduced clutter
- Interactivity

Layout

- Conical shape with ancestors above and descendents below the root node
  - Degree based
- Each node has a different length stem from their parents based on their age
  - Age determines how far from the root node each node is
- Circular axis
- Reduced clutter because of the shape (older above, younger below)

Layout – Sample Conical Shape



Interactivity

- Dynamic root switching
  - Clicking on another node makes it the root of the tree, and all the other nodes change formation to center around the new root

Interactivity

- Hover for more information
  - Hovering over a node will provide more information about that node, including the information encoded in the visualization (age, gender, parents, etc) as well as other information the user chooses to include (location, hobbies, etc).

Interactivity

- Slider to highlight different age brackets
  - Slider that highlights different nodes based on difference in ages from the root node.

Interactivity

- Search for nodes
  - Search box added to search the nodes on their names
  - Functionality-wise: it is complete
  - Visually: highlighting of the nodes has not been implemented

Interactivity

- Slider to highlight the same generation
  - A slider to highlight nodes depending on which generation they are in
  - Used to easily see the age differences between nodes of the same generation
  - Not fully implemented
  - Alternative: Distance slider that will hide all nodes but those that are in the d smallest distances from the root