

Visualizing large pedigree charts in 3D space

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This talk will present some ideas on solving the problem of visualizing and navigating large pedigree charts, and demonstrate Gena, an implementation of some of these ideas.

When dealing with large sets of genealogical data, only a small percentage of the data can be displayed at any given time. If a large amount of the stored data about each individual is shown, the number of individuals that can be viewed on the screen is very small – in most cases, even if only the name of each individual is shown, they can not all be viewed at once. This lack of context for a set of individuals makes it very difficult to understand how they fit into the big picture. Lack of context is particularly vexing when trying to navigate through a large set of data; it is all too easy to get lost in a large pedigree tree. A common example of this is Personal Ancestral File, where only five generations are visible on the screen.

One solution to this problem is to allow the user to specify which individual they are most interested in. The selected individual is then shown with the most information, while other individuals are shown with less and less information as they are less and less closely related. Ultimately, individuals who are far enough removed from the individual of interest will be shown without any information displayed at all – only the structure of the tree will be visible, to provide context for the information displayed about the individual of interest.

Another idea that can help to visualize large amounts of data is to make a more full use of computers as an interactive medium. When visualizing genealogy on paper, the display is static and limited to two dimensions. When visualizing genealogy with the use of a computer, the display can dynamically change itself based on user interaction in three dimensions. These two added dimensions allow for much more information to be available to the user at a time.

An implementation of these ideas will be demonstrated. This implementation also includes a facility to check genealogical data for errors, and fix them while maintaining the context of the larger tree.