

# Project Find a Friend

research by:

Richard Deslauriers

# Overview

- The Problem at Hand
- The Data
- The Method
- The Results
- Q&A

# The Problem at Hand

- Finding peers and making friends can be difficult.
- The United States is big.
- How does one compare 50 states to one and other?

# The Data

- Source: U.S. Census Bureau
- 51 entries: 50 States + District of Columbia
- Five age groups: 0-17, 18-44, 45-64, 65-74 and 75+

# The Method

- Collect data from the U.S. Census Bureau.
- Run the data through a self-organizing map, or SOM.
- Use the SOM to locate patterns and trends in age brackets throughout the U.S.

# What is a SOM???

- A subtype of artificial neural networks.
- A map where similar samples are mapped close together and dissimilar apart.
- The end result is a grid with samples plotted together in two dimensions.

California / Vermont	South-Carolina	Texas	Oklahoma	New-Jersey	x	Massachusetts	x	Missouri / South-Dakota	D.C
x	x	x	x	x	Kansas	x	x	Wisconsin	Montana
Florida	New-York	x	x	North-Carolina	Iowa	x	Maryland	x	Minnesota / Maine
x	x	Illinois	x	x	x	x	x	x	Colorado
Pennsylvania	Ohio	Michigan	Virginia	x	Alabama	x	Kentucky	x	x
x	x	x	Tennessee	Washington	x	Oregon	x	x	Utah
x	x	x	x	Connecticut	x	x	x	Nebraska	x
Georgia	x	Indiana	x	x	Arkansas	x	Idaho	x	x
x	x	x	Louisiana	x	Nevada	New-Mexico	New-Hampshire	Rhode-Island	Alaska
Wyoming	x	Arizona	x	Mississippi	x	West-Virginia	Hawaii	Delaware	North-Dakota

# The Results

- There are more young individuals throughout the U.S. than older adults and the elderly.
- The number of individuals aged 18-45 greatly outnumbers all of the other age groups in total throughout the country.



# The Results (cont.)

- The coastal states showed higher numbers for the younger age groups.
- There were also states scattered throughout the Midwest and mountain areas.

# The Results (cont.)

- The SOM proved that chances are pretty good just about anywhere.
- But if you are under 45 the chances are best on the coastal states.